ORDER NO. MTV9504066C3

Service Manual

TV / VCR Combination

TC–14SV10S

TV : MX–3V Chassis
VCR : K–Mechanism

VHS PAL
NTSC PLAYBACK

Specifications

Power Source : AC 110 – 220V, 50/60Hz

Power Consumption : 90W (Max.)
Stand–by condition
41W (VCR REC)
5W (VCR STOP)

Aerial Impedance : 75 Ω unbalanced,
Coaxial type

Receiving System : 7 Systems
PAL–B/G
PAL–D, K
NTSC 4.43
AV NTSC 3.58
SECAM D/K
SECAM B/G
PAL 60Hz

Tuning System : Frequency Synthesizer
60 position (Auto Search)

Receiving Channels :

VHF Band	1 – 12	(PAL – D)
UHF Band	21 – 69	(PAL – I)
	13 – 57	(PAL – D, K)
CATV	S1 – S20	(OSCAR)
	S21 – S41	(HYPER)
	Z1 – Z37	(CHINA)

Intermediate Frequency :

Video	38.0 MHz	
Sound	31.5 MHz	(D, K)
	32.0 MHz	(I)
Colour	33.57 MHz	(PAL)

Video / Audio Terminals :

AV IN	Video (Phono)	1 Vp–p 75 Ω
	Audio (Phono)	Approx. 400mV
VCR OUT	Video (Phono)	1 Vp–p 75 Ω
	Audio (Phono)	Approx. 400mV

High Voltage : 24.5 (+0.7, –1.5)kV
at zero beam current

Picture Tube : 37GDC85X
Type 14 (36cm)
90° deflection

Audio Output :
Internal Speaker 3.0 W (Max.)
Impedance 8 Ω

Speaker : 1 speaker system

Head Phones : Impedance 8 Ω

Dimensions : Height : 371 mm
Width : 400 mm
Depth : 383.5 mm

Mass : 14.0 kg (Net)

Accessories Supplied : Remote Controller x 1
(TNQ10481)
" R6 " Battery x 2

Continued to the following page.

Specifications are subject to change without notice.
Mass and dimensions shown are approximate.

Panasonic

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Specifications (VCR)

Recording System :	2 rotary heads, helical scanning
Recording /Playback :	Recording : PAL Playback : PAL/ NTSC
Tape Speed :	2.339 cm / sec. (PAL) 3.33 cm / sec. (NTSC)
Tape Format :	VHS tape
Record / Playback Time :	240 min. with E–240 type tape. (PAL) 180 min. with T–180 type tape. (NTSC)
FF / REW Time :	Approx. 2 min. 30 sec. with E–180 type tape
Modulation System :	Luminance : FM azimuth recording Colour Signal : Converted subcarrier phase shift recording
Audio Track :	1 track (mono only)
Operating Temperature :	5°C ~ 40°C
Operating Humidity :	35 % ~ 80 %

Specifications are subject to change without notice.
Mass and dimensions shown are approximate.

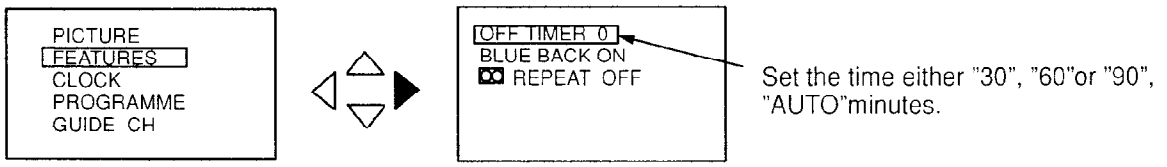
Service Hint

1 Market Mode function of TV

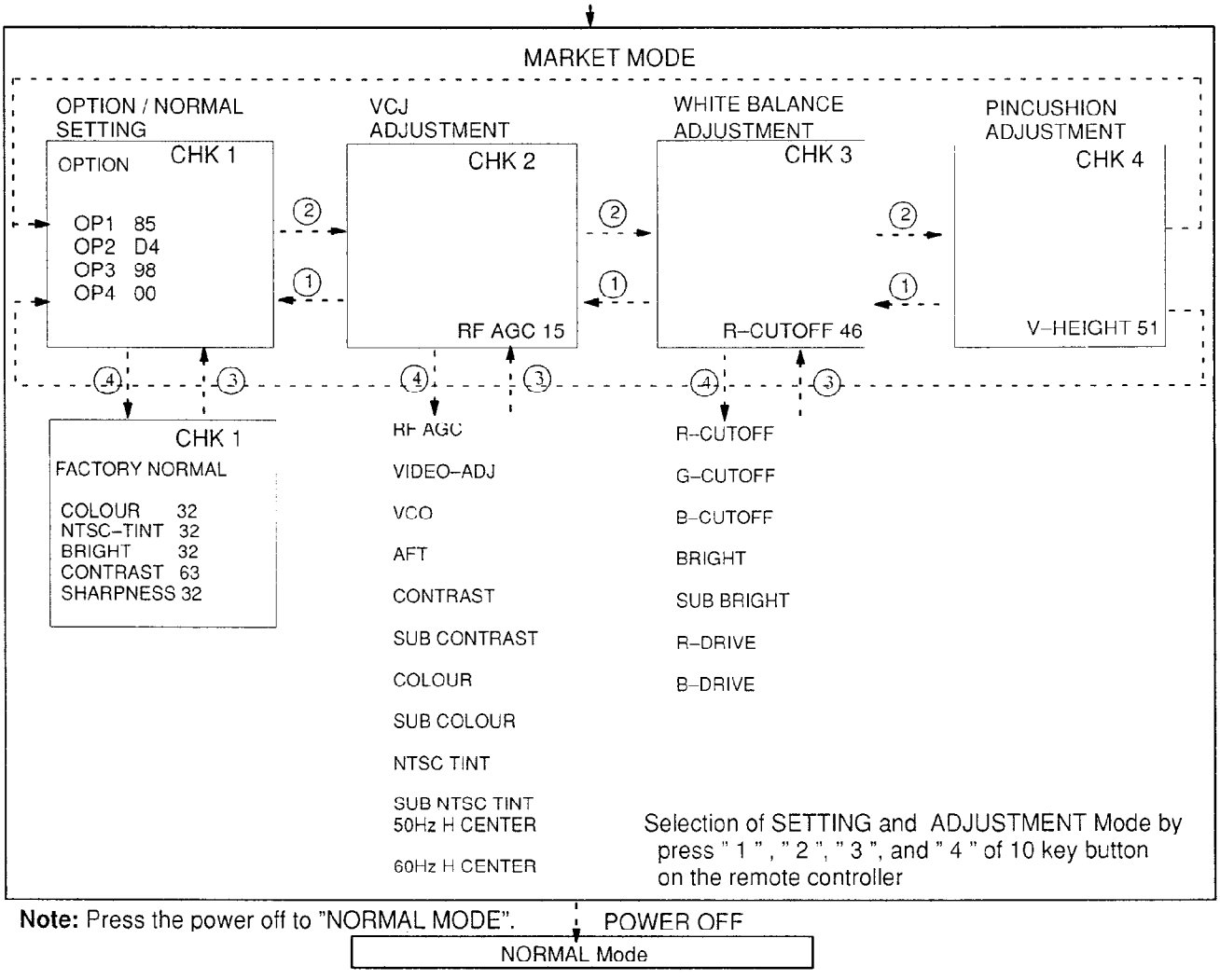
Outline:

MPU controls the functions switching for each ICs through I^2C bus in MX–3V chassis.
The following setting and adjustment can be adjusted by remote control transmitter in Market Mode.

1. Set the VOLUME " **zero** " by the VOLUME DOWN [–] button on the TV set.
2. Press the MENU button and select " FEATURES " by pressing the cursor button.
3. Set the OFF TIMER " **ON** " by Pressing the cursor button.



4. To set the Market mode(CHK 1) by Simultaneously press the " **RECALL**" button[+]on the remote control and the " **VOLUME DOWN** " button [–] on the TV set.



Note: Press the power off to "NORMAL MODE". POWER OFF

NORMAL Mode

1 –1 Option Normal Setting Mode (CHK 1)

1. There are 4 screens (4 items) in option / normal setting mode as follows Data and level of each item are fixed depended on the model. If the memory IC (IC1205) is replaced, optional data and normal level should be re–memorized. To change the screen (item) in CHK 1 mode, press " 3 " or " 4 " of 10 key button. Then Date and Level changes by pressing Volume "+" or "–" button.

2. In Option mode, if changed the number, the character colour will be changed from green to red, Press " 0 " of 10 key button to memorize and the colour changed to Green.

1 –2 VCJ Adjustment Mode(CHK2)

1. To change the screen (item) in CHK mode, press " 3 " or " 4 " of 10 key button. Then Date and Level changes by pressing Volume "+" or "–" button.

No.	Display	Adj. Range	Average Data CHK 2	Items
1	RF AGC	0 ~ 127	15	RF AGC (For main Picture)
2	VIDEO–ADJ	0 ~ 15	15	Video detect Output
3	VCO	0 ~ 127	71	VCO
4	AFT	0 ~ 511	336	AFC
5	CONTRAST	0 ~ 63	63	Contrast (the same as user control)
6	SUB CONTRAST	0 ~ 127	62	Sub Contrast
7	COLOUR	0 ~ 63	32	Colour (the same as user control)
8	SUB COLOUR	0 ~ 127	65	Sub Colour
9	NTSC TINT	0 ~ 63	32	NTSC Tint (the same as user control)
10	SUB NTSC TINT	0 ~ 127	31	Sub NTSC Tint
12	50Hz H–CENTER	0 ~ 15	4	H–center 50Hz
13	60Hz H CENTER	0 ~ 15	8	H–center 60Hz

1 –3 White Balance Adjustment Mode (CHK3)

1. To change the screen (item) in CHK mode, press " 3 " or " 4 " of 10 key button. Then Date and Level changes by pressing Volume "+" or "–" button.

No.	Display	Adj. Range	Average Data CHK 3	Items
1	R– CUT OFF	0 ~ 511	46	Red Cut off
2	G– CUT OFF	0 ~ 511	30	Green Cut off
3	B– CUT OFF	0 ~ 511	38	Blue Cut off
4	BRIGHT	0 ~ 63	32	Bright (the same as user control)
5	SUB BRIGHT	0 ~ 255	145	Sub Bright
6	R– DRIVE	0 ~ 255	61	Red Drive
7	B– DRIVE	0 ~ 255	59	Blue Drive

1 –4 Pincushion Adjustment Mode (CHK 4)

1	V–HEIGHT	0 ~ 127	51	V–height

1 Self Check Function for TV

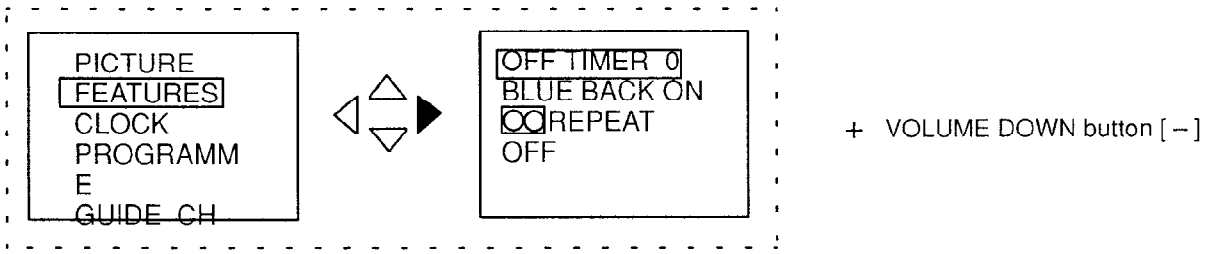
SELF CHECK is used to automatically check the Bus lines and Hexadecimal code of the TV set.Contents of the Self Check is as follows.

Confirmation result for IC function

Option code.

Procedure

1. Set the volume " zero " by the VOLUME DOWN button [–] on the panel TV set.
2. Press the MENU button and select the "FEATURE MENU" by pressing the cursor down button.
3. Simultaneously press the cursor Right button (turn on the OFF Timer) on the remote control and the VOLUME DOWN button [–] on the TV set.



Note: Press any key to clear the self–check mode and return to the normal state.

1 –1 On–Screen for SELF–CHECK mode

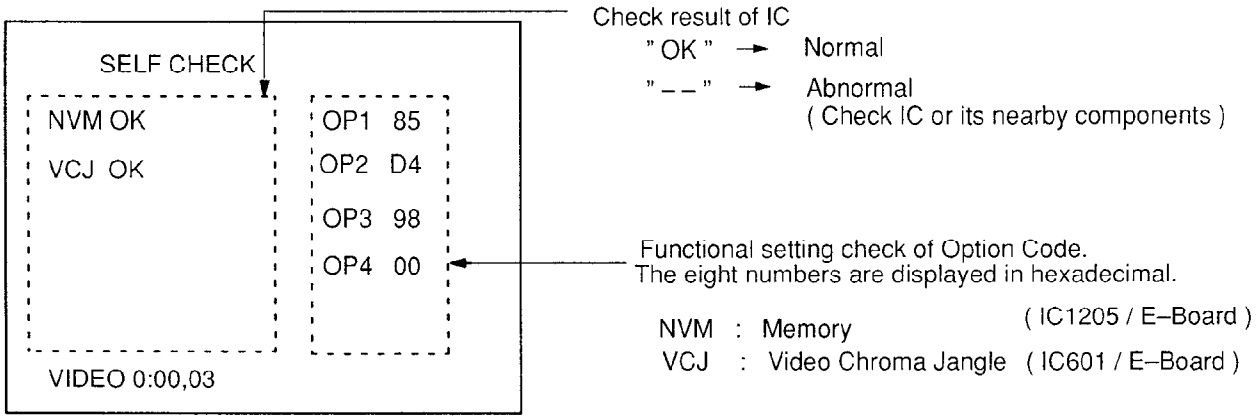

SELF CHECK
NVM OK
VCJ OK
OP1 85
OP2 D4
OP3 98
OP4 00
VIDEO 0:00,03
Check result of IC
" OK " → Normal
" – – " → Abnormal
(Check IC or its nearby components)
Functional setting check of Option Code.
The eight numbers are displayed in hexadecimal.
NVM : Memory (IC1205 / E–Board)
VCJ : Video Chroma Jangle (IC601 / E–Board)

Fig. 1

1 .Self check Function for VCR

1 –1 Service information display

This information aids trouble shooting by indicating the source of the malfunction on the screen. The service mode number & service data number are used by the technician during repair to provide a more accurate repair cost estimate and reduce repair time.

1. Display method

(1) Select the "OFF TIMER" mode in FEATURE MENU".

(2) Simultaneously push the Right button of Position button(Turn on the OFF TIMER) on the remote control and push the VOLUME DOWN "–" button on the TV set.

2. Cancel method

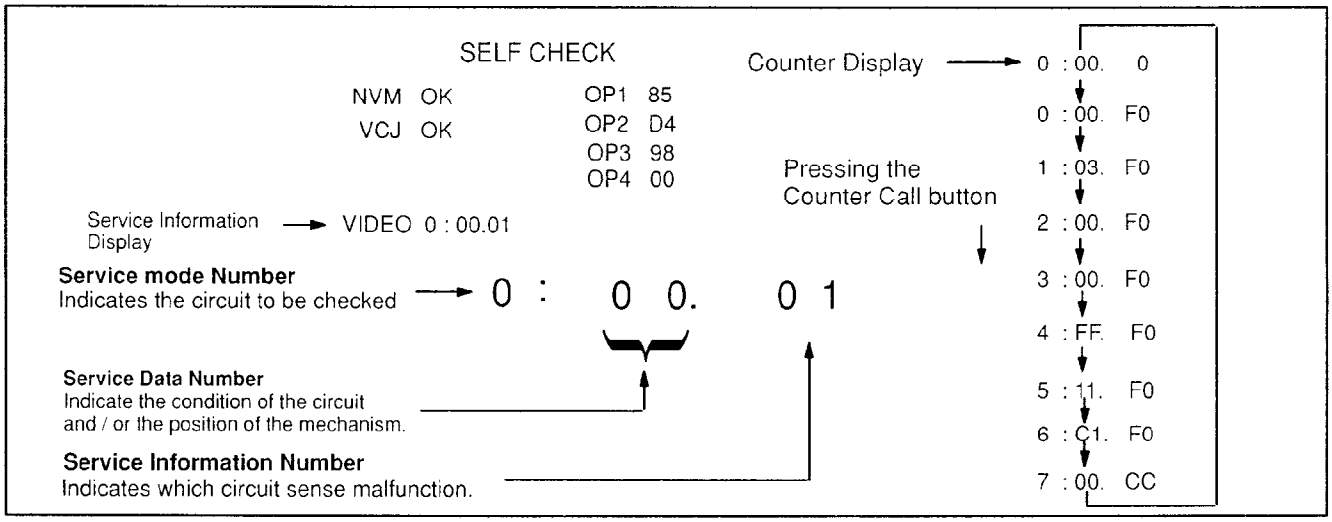
(1) This will be canceled when the main power is turned "OFF".

3. Service mode changing

(1) The service mode number can be switched as shown below by pressing the Counter Call Button on the remote control once each time while the Service information display is being shown.

CAUTIONS :

After the check of each service mode, the set should return to service mode number " 0 ".



1 –2 Using the Service Mode

1. Purpose of Service Mode

Service Mode Number	Purpose of Use
1	Verifies Supply and Take–up Sensor Detection
2	i. Verifying Mechanical Location Alignment Verifies that the mechanical location and the electrical section (mode SW reading) are aligned. ii Detecting Cause of Abnormal Operation Operates even with no tape inserted to detect Abnormal Operation and Mechanical Failure
3	Verifies whether mechanical operation is normal.
4	Verifies the Operating Button Receive Example : Unit does not operate even thou the "Play" button is pushed. → However, the display is normal and operation is normal → until the main microprocessor is reached.
5	Is the Capstan drive command operating normally ? Display Normal → Check the Capstan Drive Circuit Detection
6	Is the Cylinder Drive Command being output properly ? Display Normal → Check the Cylinder Drive Circuit Detection
7	Verify mechanical operation after disassembly.

1. Content of each Service Mode Number

<table>
<tr><th>Service Mode Number</th><th>Note for checking</th><th>Service Data Number</th><th>Indication</th><th>Remarks</th></tr>
<tr><td>1</td><td>Data for Take-up Photo and Supply Photo Sensor</td><td>00 or 40
01

02

03</td><td>No light detected at either sensor
Take up Photo Sensor detected the beginning of tape

Supply Photo Sensor detected the end of tape.

Light detected at both sensor</td><td></td></tr>
<tr><td>2</td><td>Mechanical position data</td><td>00

01

02

03

04

05

06

07</td><td>EJECT

Cassette-Down

REVIEW

MID (at ending of Loading)

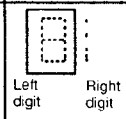
PLAY, REC, STILL/ PAUSE, CUE, FWD SLOW, STOP3*1

STOP*2

FF, REW

Intermediate position</td><td>• Refer to FIG D7 to check mechanism position and timing.

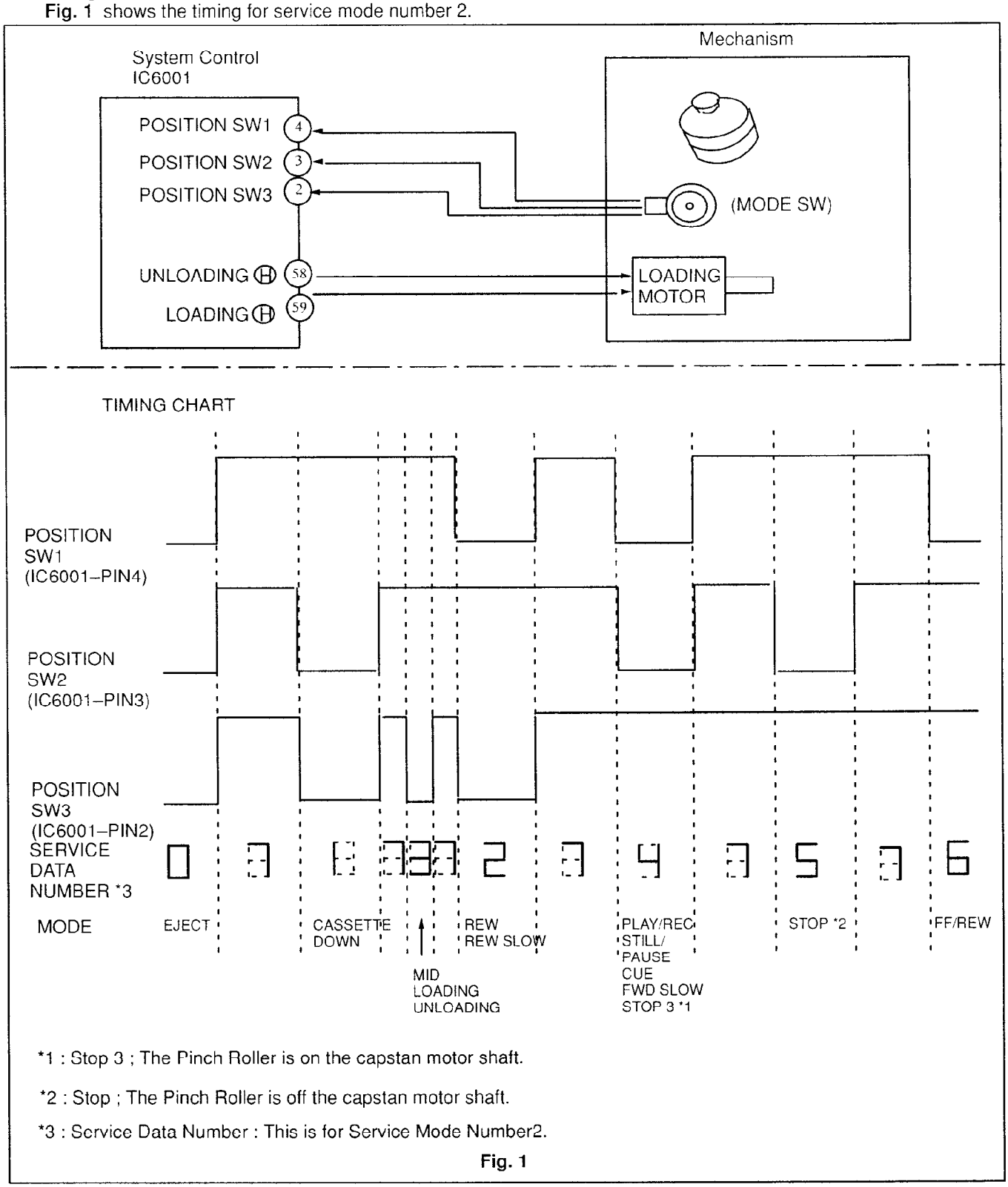
•Supply & Take- up sensor are not working this mode to check without cassette tape.

*1 STOP3 ; The Pinch Roller is on the capstan motor shaft.
*2STOP : The Pinch Roller is off the capstan motor shaft.</td></tr>
<tr><td>3</td><td>Disregard service data displayed until mechanism operation is completed. The display should indicate "00".</td><td>00</td><td>Any display other than " 00 " indicates a fault in the mode switch circuit or system.</td><td></td></tr>
<tr><td>4</td><td>Display only when the operating button is pressed.</td><td colspan="3">When the operating button is pressed.
<table><tr><td>Button</td><td>STOP</td><td>PLAY</td><td>REW</td><td>FF</td><td>REC</td><td>STILL</td><td>STOP EJECT</td><td>call</td><td>reset</td></tr><tr><td>Display</td><td>00</td><td>0A</td><td>02</td><td>03</td><td>08</td><td>06</td><td>01</td><td>39</td><td>54</td></tr></table></td></tr>
<tr><td rowspan="3">5</td><td>Left digit only, disregard Right digit display</td><td> 
Left digit Right digit</td><td>8, 9, A, B, C, D, E and F display indicate that the Capstan motor "PLAY" command received by IC6001.</td><td rowspan="3">Tape required.
If a symbol other than those listed is displayed, a malfunction in that circuit is indicated.</td></tr>
<tr><td>Right digit only, disregard Left digit display</td><td> </td><td>1, 2, 3, 4, 5, 6, 7 indicate that the Capstan motor "CUE, FF, Forward slow" command received by IC6001.</td></tr>
<tr><td>Right digit only, disregard Left digit display</td><td> </td><td>8, 9, A, B, C, D, E and F display indicate that the Capstan motor Reverse Rew, Reverse slow command received by IC6001.</td></tr>
</table>

1 –1 Timing Chart from mode SW to system control IC6001.

System control IC6001 senses the mechanism position through the mode SW.

Fig. 1 shows the timing for service mode number 2.



*1 : Stop 3 ; The Pinch Roller is on the capstan motor shaft.

*2 : Stop ; The Pinch Roller is off the capstan motor shaft.

*3 : Service Data Number : This is for Service Mode Number2.

Fig. 1

1 –1 Service Mode "2"

1.Cancels the Supply and Take–UP sensor, enabling the mechanical components to operate without a tape (i.e., the loading, DD Cylinder, and Capstan motors), allowing you to check normal VCR operation and mechanical performance (Cassette–In, Eject, Play, Stop, FF, Rewind, etc.)

2.The service mode display is displayed by the Call Button on the counter display location at the top right of the screen.Since the Supply and Take–Up Sensor is canceled, when using a cassette tape to check operation, take care concerning the beginning and end tape sections during FF and rewind.

3. After checking, remove the power cord and cancel the Service Mode.

1 –2 Service Mode No. "7"

1.This allows you to move the mechanism one mode position each (Play, Stop Button).

2.Moving

- Play Button : Moves the loading direction
- Stop Button : Moves the unloading direction.

If you perform loading without inserting a cassette into the cassette holder unit, since there are four latches on the cassette holder, release these latches while moving mechanism with the Play button.

NOTE :

- The service information display is displayed in the counter at the upper right of the screen.
- Move the Loading Motor manually, and verify the Mode SW condition and the mechanism location.
- After checking, remove the power cord and cancel the service mode.

1 –3 Content of Service information Numbers

1.Malfunctioning sections are displayed regardless of the Service Mode No. (except Service Mode No. 7).
Remains in memory unless the power cord is removed.
If another abnormal function occurs, the information is revised to reflect the new malfunction.

Service information Numbers

<table>
<tr><th>Number</th><th>Content</th><th>Assumed Cause</th><th>Check Location</th></tr>
<tr><td>F0</td><td>Normal</td><td>No problem</td><td>———</td></tr>
<tr><td rowspan="2">F1</td><td rowspan="2">Cylinder motor is stopped</td><td>Cylinder motor does not run</td><td rowspan="2">IC 6001 24 PIN Stop – Restart(Start)–Restart
4.5V 1.0V 2.4V
IC 6001 28 PIN

</td></tr>
<tr><td>The FG / PG signal is not emitted from the cylinder motor</td></tr>
<tr><td>F2</td><td>Reel table has stopped.</td><td>Capstan does not turn during FF, REW or Play / Record</td><td rowspan="2">IC6001 62 PIN Reverse — Stop —Turn
5V 2.0V 0V
IC6001 23 PIN Revolves normally 2.6V
IC6001 72 pin Reverse Hi(5V)</td></tr>
<tr><td>F5</td><td>Reel table stops during unloading.</td><td>Capstan motor does not turn during unloading</td></tr>
<tr><td>F3</td><td>Loading motor does not turn</td><td>Stop at position other than 4 or 6.</td><td rowspan="3"><table><tr><th></th><th>Loading</th><th>Unloading</th><th>Prevention</th></tr><tr><td>IC6501 1 PIN</td><td>8V or12V</td><td>0V</td><td>0V</td></tr><tr><td>IC6501 9 PIN</td><td>0V</td><td>6,8,or12V</td><td>0V</td></tr></table></td></tr>
<tr><td>F4</td><td>Cannot unload</td><td>Loading motor does not turn during unloading</td></tr>
<tr><td>F6</td><td>Stop during cassette IN–EJECT operation</td><td>Loading motor does not turn during cassette –IN/Eject operation</td></tr>
</table>

Mechanical Adjustment Procedures

1 Adjustment

1 –1 Tension Post Position Adjustment

(Equipment Required)
Hex Wrench (VFK0326)

1. Remove the CASSETTE HOLDER.
2. Turn the LOADING MOTOR until the loading completes.
3. Adjust the hole of TENSION BAND FASTENER by hex wrench so that the left edge of IMPEDANCE ROLLER and TENSION ARM UNIT as shown in **Fig. 1** .

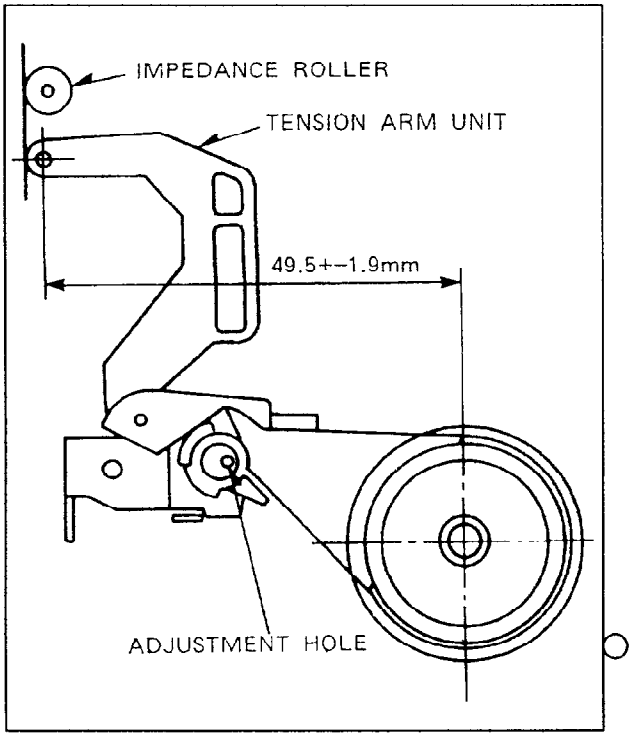


Fig. 1

1 –2 Back Tension Adjustment

(Equipment Required)
Back Tension Meter (VFK0132)
VHS Cassette Tape (180 minutes tape : PAL)
(120 minutes tape : NTSC)
(Specification)
22.5 – 27.5 g

1. Playback the cassette tape from the beginning and wait until the tape movement get the stabilization. (for approx. 10 ~ 20 seconds)
2. Insert the Back tension Meter into the path of a tape, and measure the back tension to be within specification as shown in **Fig. 2** .

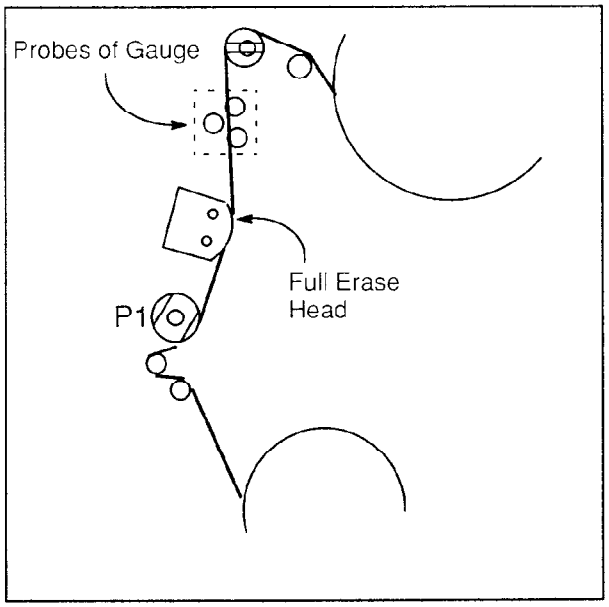


Fig. 2

3. If it is out of specification, change the spring notch as shown in **Fig. 3** .

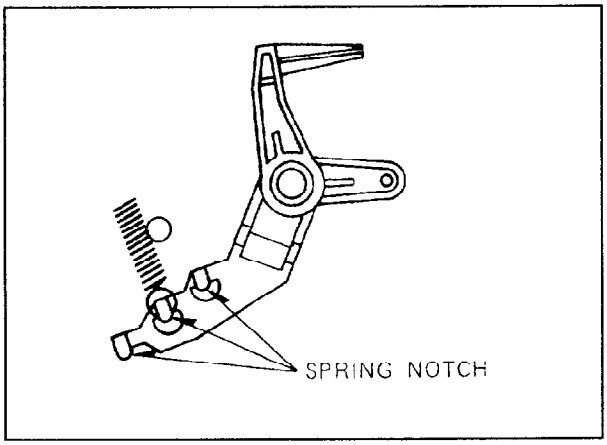


Fig. 3

1 –3 P2 and P3 Posts Adjustment (Preadjustment)

(Equipment Required)
Post Adjustment Screwdriver (VFK0329)

1. Remove the CASSETTE HOLDER.
2. Turn the LOADING MOTOR until the unloading completes.
3. Loosen the fixing screw of P2 and P3 POSTS.
4. Rotate the P2 and P3 POSTS clockwise to the end.
5. Rotate the P2 and P3 POSTS twice counterclockwise.

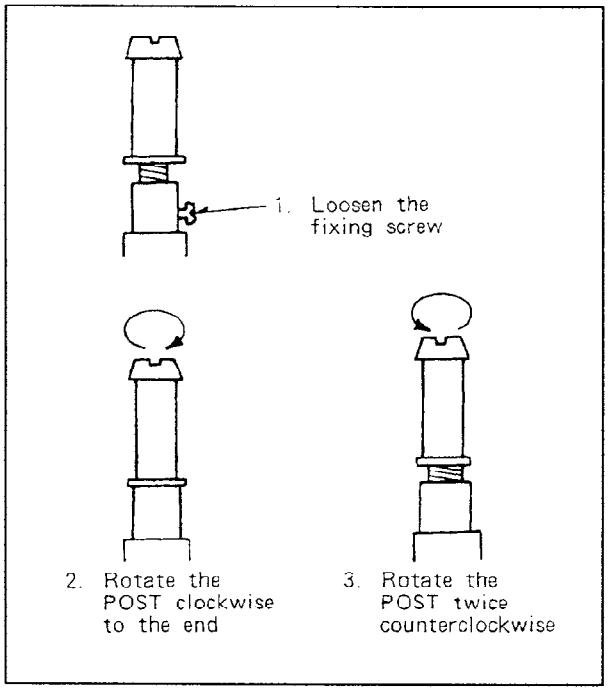


Fig. 1

1. Install the CASSETTE HOLDER.
2. Playback the cassette tape and make sure that the edges of the tape are not curling at the bottom or top end of thc P1,P2,P3 and P4 POSTS as shown in **Fig. 2** .

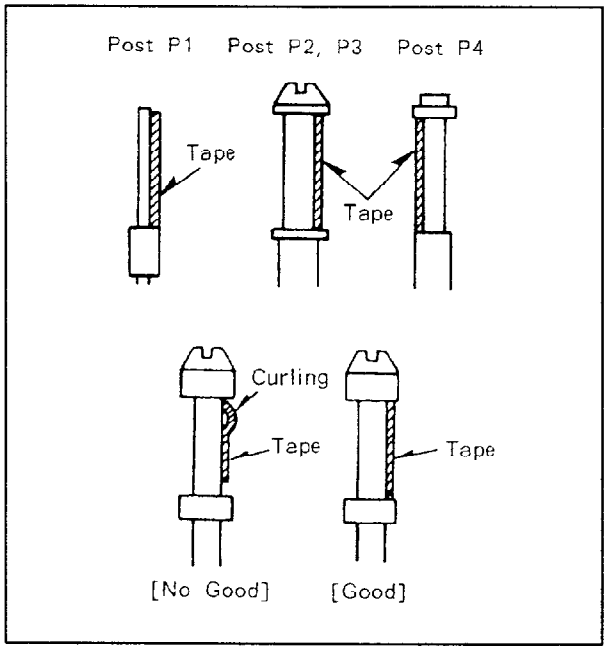


Fig. 2

3. If curling appears, readjusts the P2 and P3 POSTS.

1 –1 TAPE INTERCHANGEABILITY ADJUSTMENT

Carry out the following procedure for Tape interchangeability Adjustment to do it correctly and smoothly.

(1) Adjstment of P2 and P3 Posts.

(2) Height Adjustment of A/C Head (1)

(3) Height Adjustment of A/C Head (2)

(4) Fine – Adjustment of A/C Head

(5) Horizontal Position Adjustment of A/C Head.

If the Tape interchangeability Adjustment is not protect, repeat the above procedures from (1) to (5).

CAUTIONS:

To mark a Adjustment Mode for Tape Interchangeability, connect a Cut Jumper Wire as shown in **Fig. 3**
(Auto Tracking is turned off.)
After finishing the adjustment, disconnect the Cut Jumper Wire.

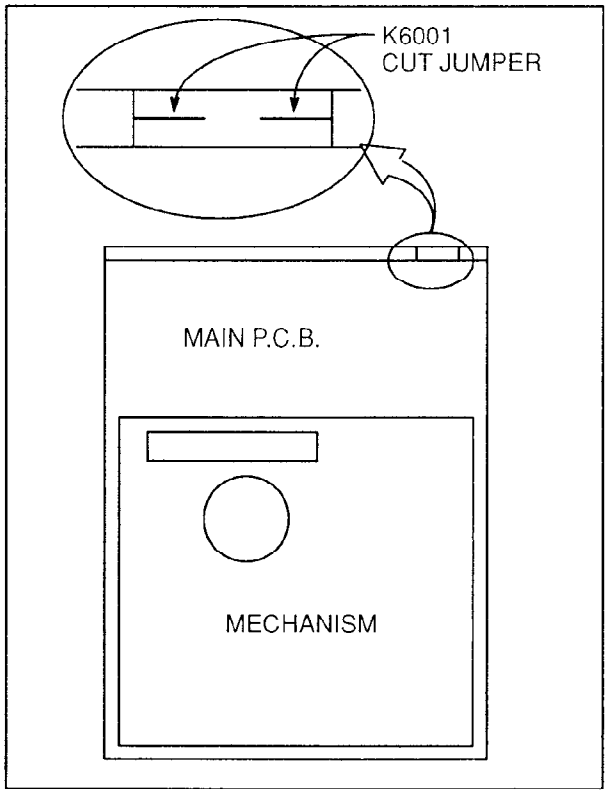


Fig. 3

(1) Adjustment of P2 and P3 Posts

(Equipment Required)
Alignment Tape (PAL/SECAM : VFJ8125H3F. NTSC : VFM8080HQFP)
Post Adjustment Screwdriver (VFK0329)

1. Set the tracking control into the fix position. And connect the oscilloscope to the output of the Head Amp as shown in **Fig. 1**

Note : To get a stable waveform of the Head Amp output on the oscilloscope, use the head switching pulse as a triggering signal as shown in **Fig. 1** .

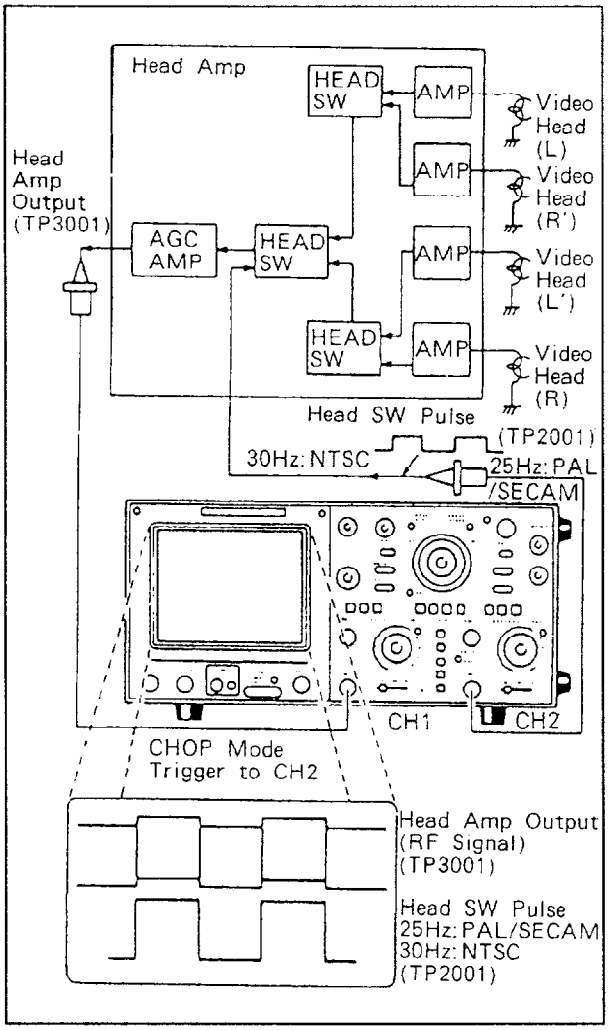


Fig. 1

2. Playback the alignment tape.
3. If the RF envelope appears like example " A " or " B " in **Fig. 2** then adjustment of the tape guide post (P2 : Entrance) is necessary.
4. Adjust the tape guide post (P2) with the post adjustment screwdriver so that the RF envelope waveform at the entrance portion becomes flat as shown in **Fig. 2** –"C".

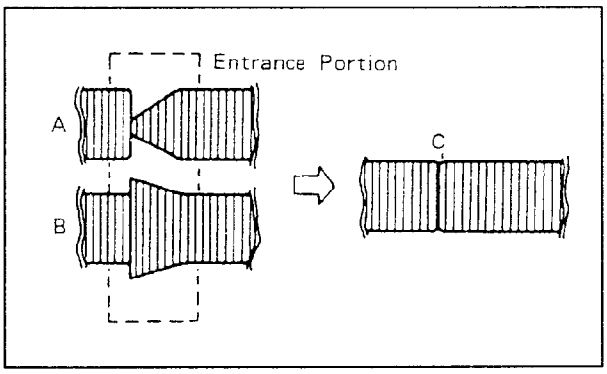


Fig. 2

5. If the RF envelope appears like example " D " or " E "in **Fig. 3** , then adjustment of the tape guide post (P.3 ; Exit) is necessary.
6. Adjust the tape guide post (P3) in the same manner as the P2 post so that the exit portion becomes flat as shown in6 **Fig. 3** –"**F**".

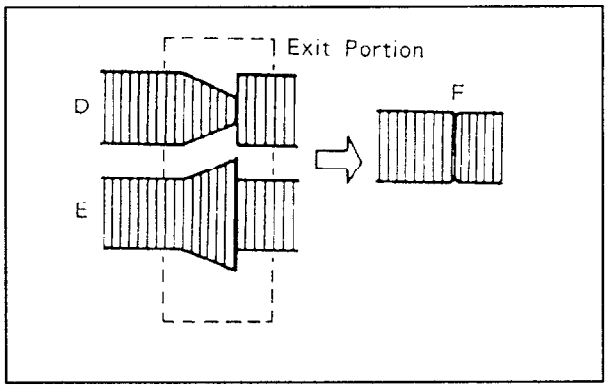


Fig. 3

7. Keep pressing "+" button or "–" button on the Remote Control. The output envelope should vary nearly parallel with other condition as shown in **Fig. 3** .
8. Set the tracking control into centre fix position and adjust for maximum RF envelope, whilst being as flat as possible.

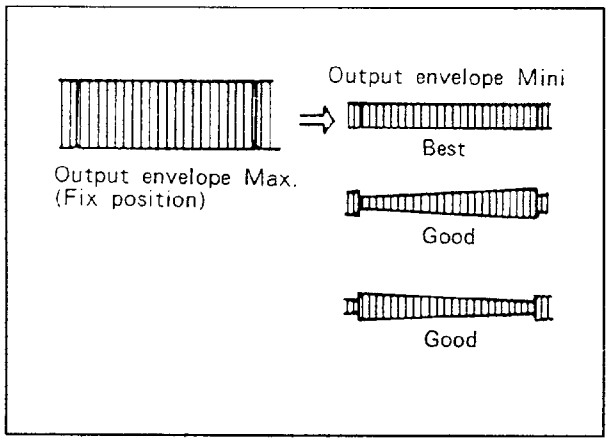


Fig. 1

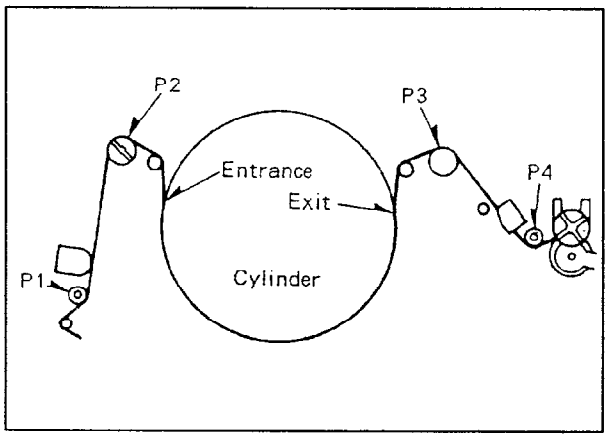


Fig. 2

(1) Height Adjustment of A/C Head (1)

1) Install the A/C HEAD on the A/C HEAD BASE (E) by 3 screws (A), (B) and (C) with springs.

2)Tighten the screw (A) unit it touches chassis and then rotate the SCREW (A) counterclockwise for approx. 1.5 times.

3)Rotate the 2 screws (B) and (C) until A/C HEAD BASE (D) and (E) is separate.

Caution:

When adjusting the Screws (B) and (C) on the A/C HEAD Base (E), do not touch the Screw Driver to the face of the A/C HEAD.

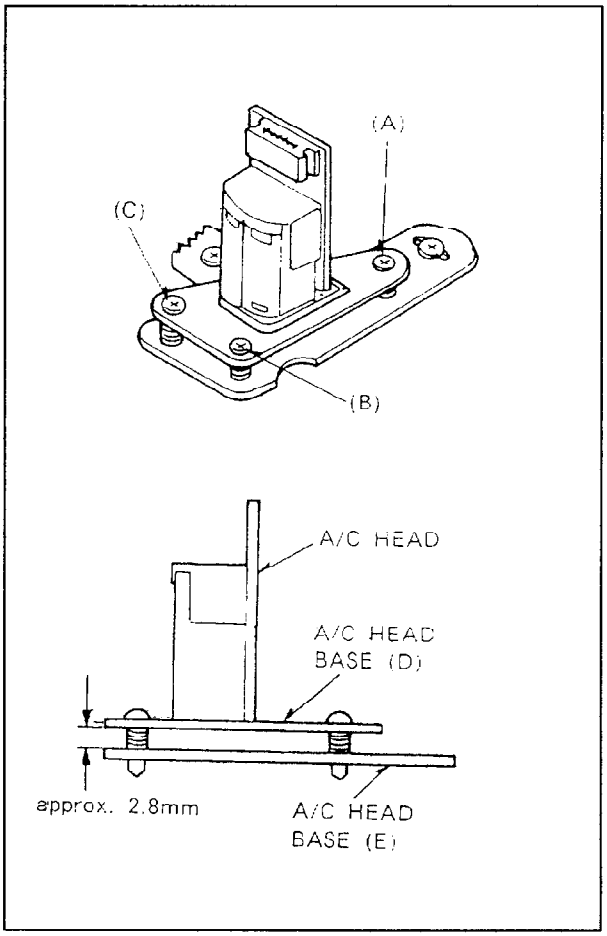


Fig. 3

(1) Height Adjustment of A/C Head (2)

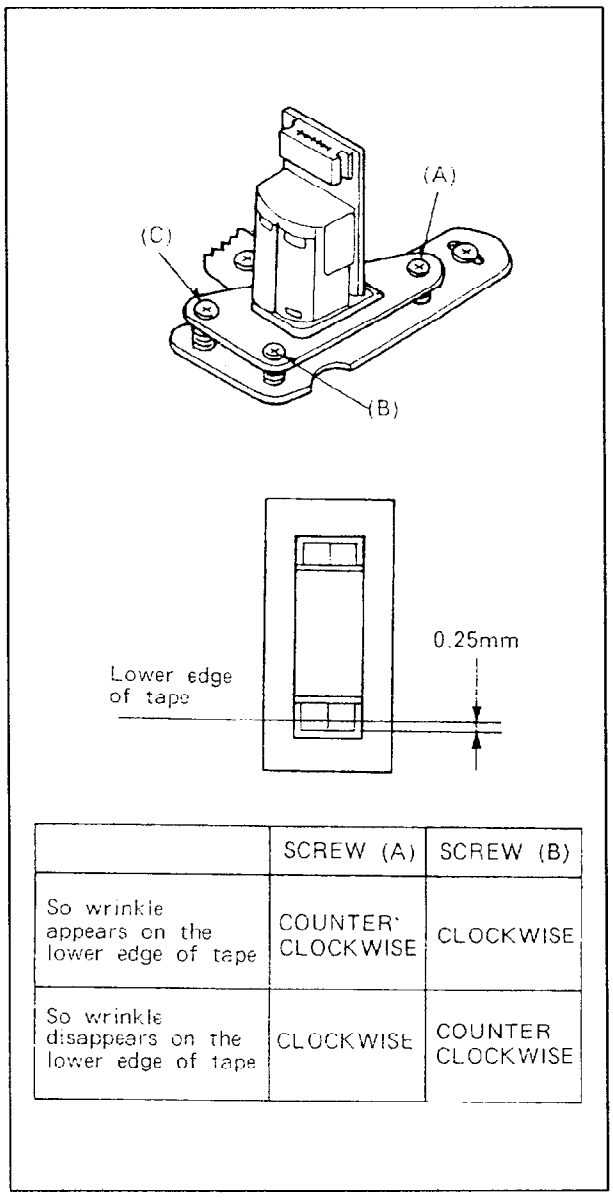
1) Playback the alignment tape.

2) Rotate the screw (A) or (B) until the wrinkle appears on the lower edge of tape at P4 post.

3) Rotate the screw (A) or (B) until the wrinkle just disappears on the lower edge of tape at P4 post.

4) Connect the oscilloscope to audio output terminal.

5) Rotate the screw (C) until audio signal is maximized.



	SCREW (A)	SCREW (B)
So wrinkle appears on the lower edge of tape	COUNTER CLOCKWISE	CLOCKWISE
So wrinkle disappears on the lower edge of tape	CLOCKWISE	COUNTER CLOCKWISE

Fig. 1

(2) Fine–Adjustment of A/C HEAD

< When moving the A/C HEAD up >

1) Rotate the screw (A) counterclockwise until the wrinkle appears on the lower edge of tape at P4 post.

2) Rotate the screw (B) counterclockwise until the wrinkle just appears on the lower edge of tape at P4 post

3) Rotate the screw (C) counterclockwise until the audio signal is maximized.

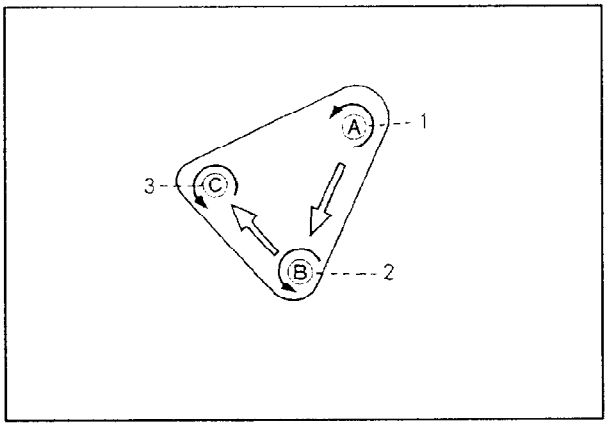


Fig. 2

< When moving the A/C HEAD down >

1) Rotate the screw (B) clockwise until the wrinkle appears on the lower edge of tape at P4 post.

2) Rotate the screw (A) clockwise until the wrinkle just disappears on the lower edge of tape at P4 post.

3) Rotate the screw (C) clockwise until the audio signal is maximized.

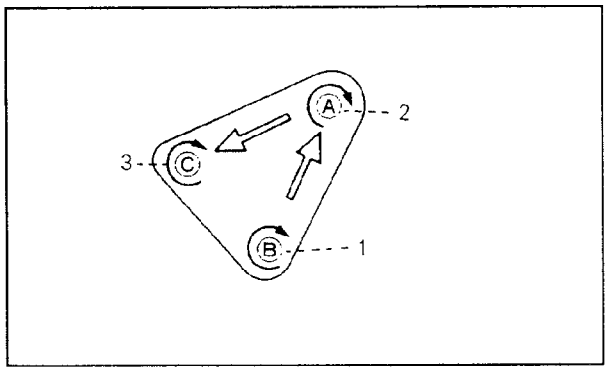


Fig. 3

(1) Horizontal Position Adjustment of A/C HEAD

1)Set the tracking control into the centre fix position.

2) Connect the oscilloscope to the output of the Head Amp as shown in **NO TAG.**

3) Playback the alignment tape.

4) Loosen the 2 screws (F) and (G).

5)Adjust the A/C HEAD BASE (E) until the RF envelope waveform is maximized.

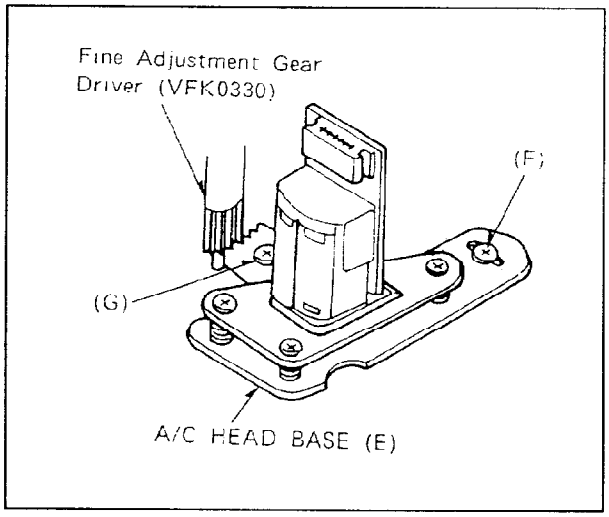


Fig. 1

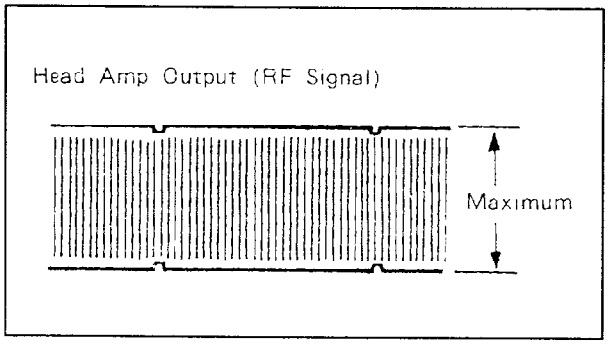


Fig. 2

1 Disassembly Procedures of Mechanism

In order to remove the mechanism components it is first necessary to remove the mechanism chassis.

NOTE: The photo is using a universal K–MECHANISM, the picture of UPPER CYLINDER ASSEMBLY is different for this model.

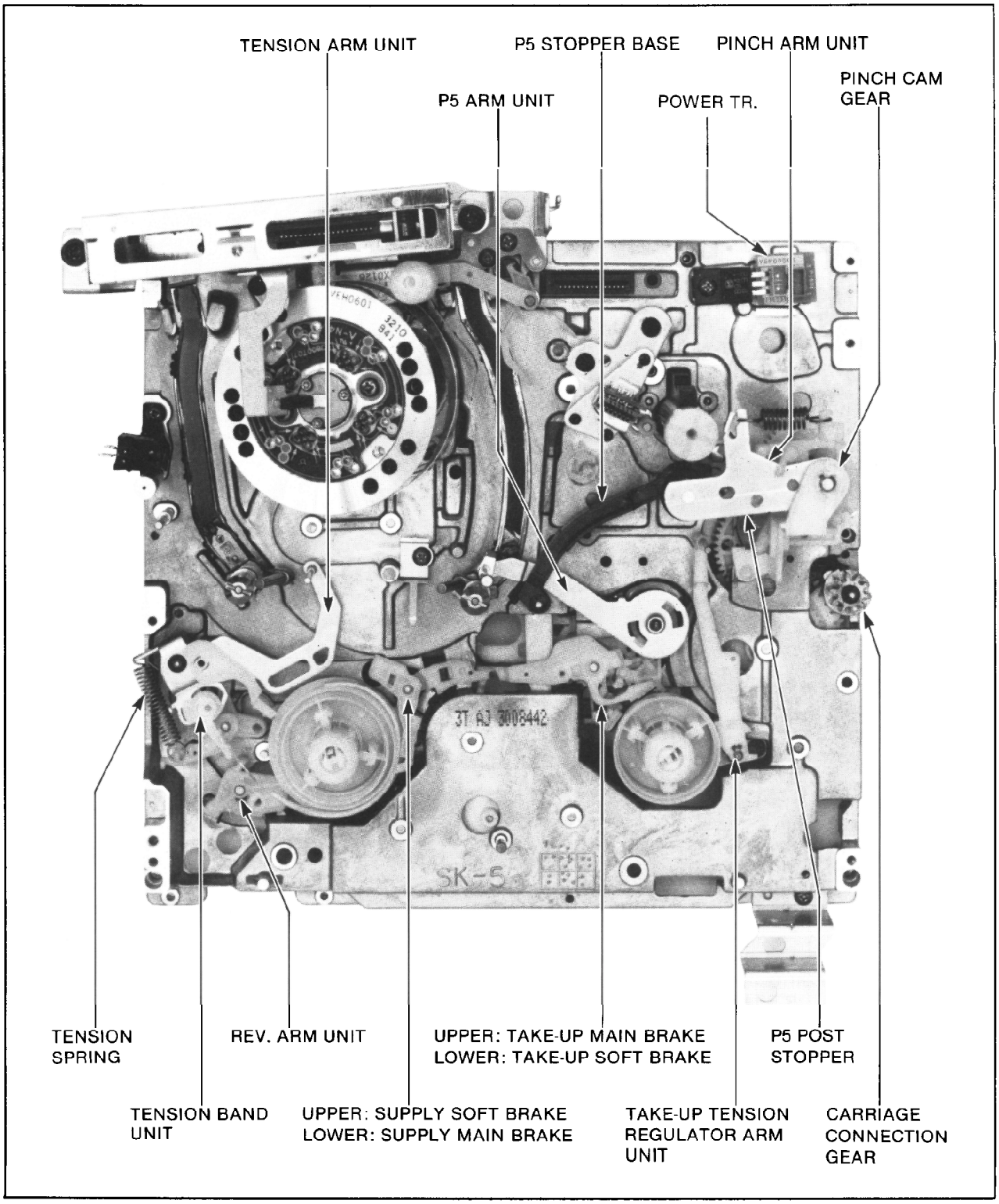


Fig. 1 TOP VIEW OF K–MECHANISM

NOTE: The photo is using a universal K–MECHANISM, the picture of UPPER CYLINDER ASSEMBLY is different for this model.

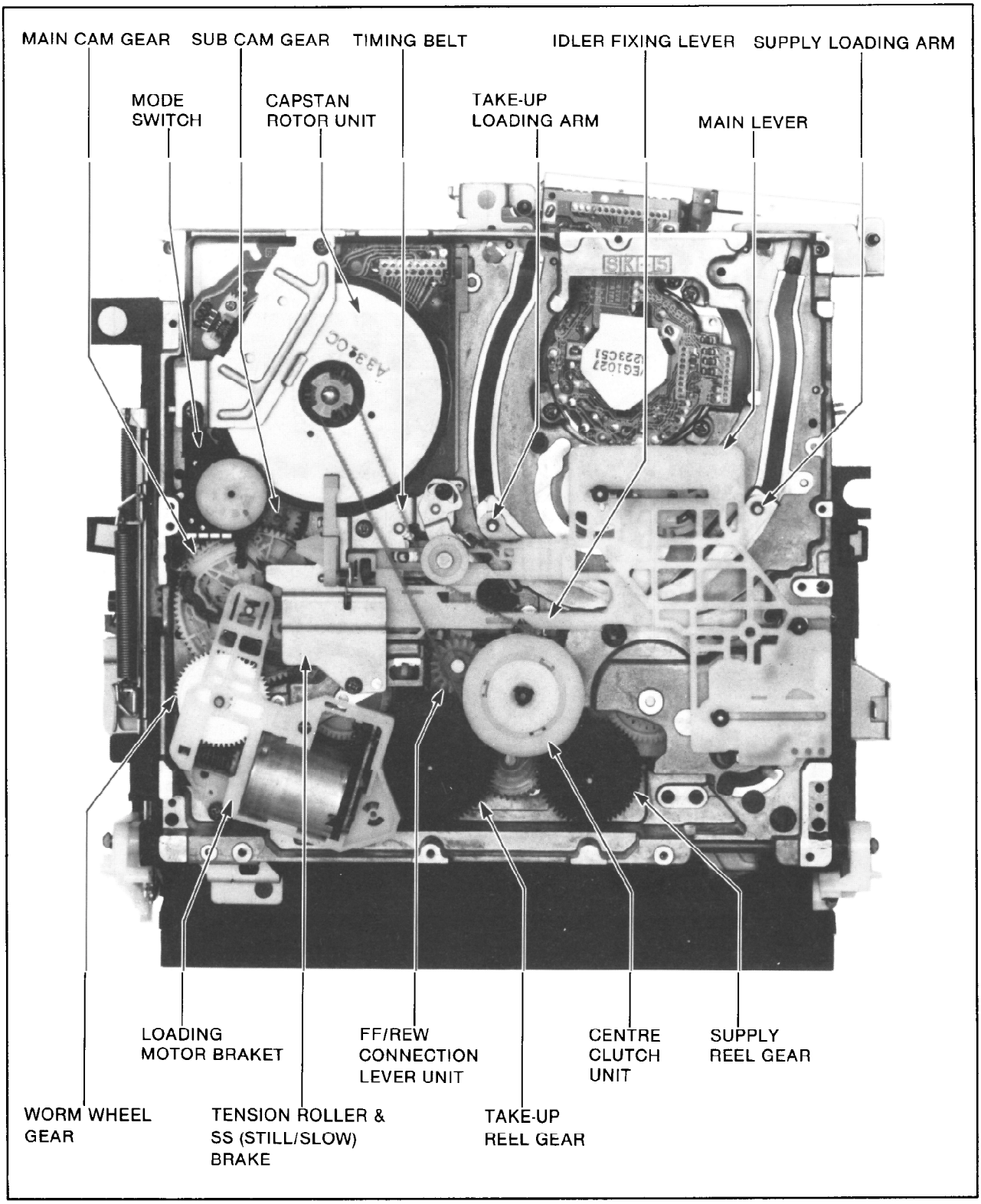


Fig. 1 BOTTOM VIEW OF K–MECHANISM

PARTS ACCESS CHART

This chart shows the parts nesseary
to gain access to other parts.

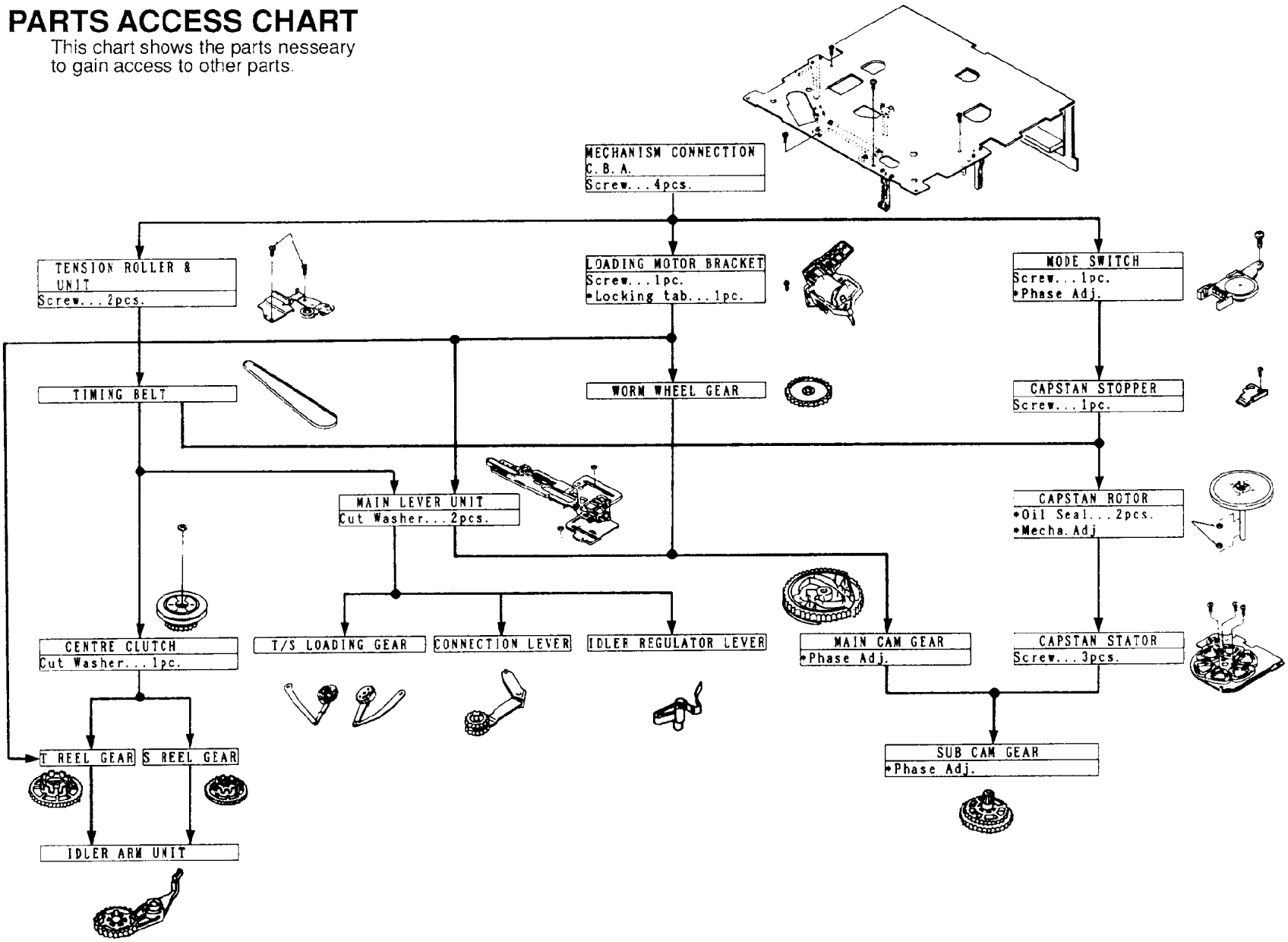
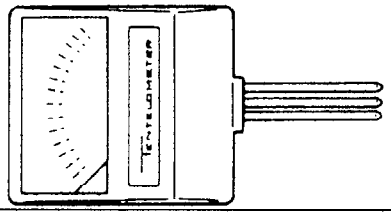


Fig. 1

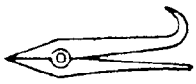
Servicing Fixtures & Tools

VFJ8125H3
PAL VHS Alignment Tape
VFM8080HQFP
NTSC VHS Alignment Tape

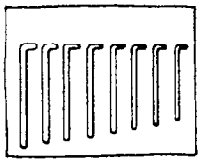
VFK0132
Back Tension Meter
(Tentelometer, Made in U.S.A.)



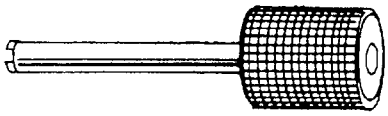
VFK0335
Retaining Ring Remover
(3mm / 4mm)



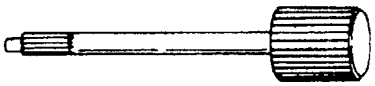
VFK0326
Hex. Wrench Set
(0.7, 0.9, 1.2, 1.5, 1.6 2.0, 2.4, 3.0mm)



VFK0329
Post Adjustment Screw Driver



VFK0330
Fine Adjustment Gear Driver



VFK0851
Centre Fixing Tool

VFK27
Hand Cleaning Stick

MOR265
Morlytone Grease

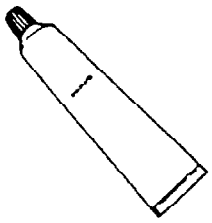


Fig. 1

Location of controls and Test Points

1.Location of control of TV

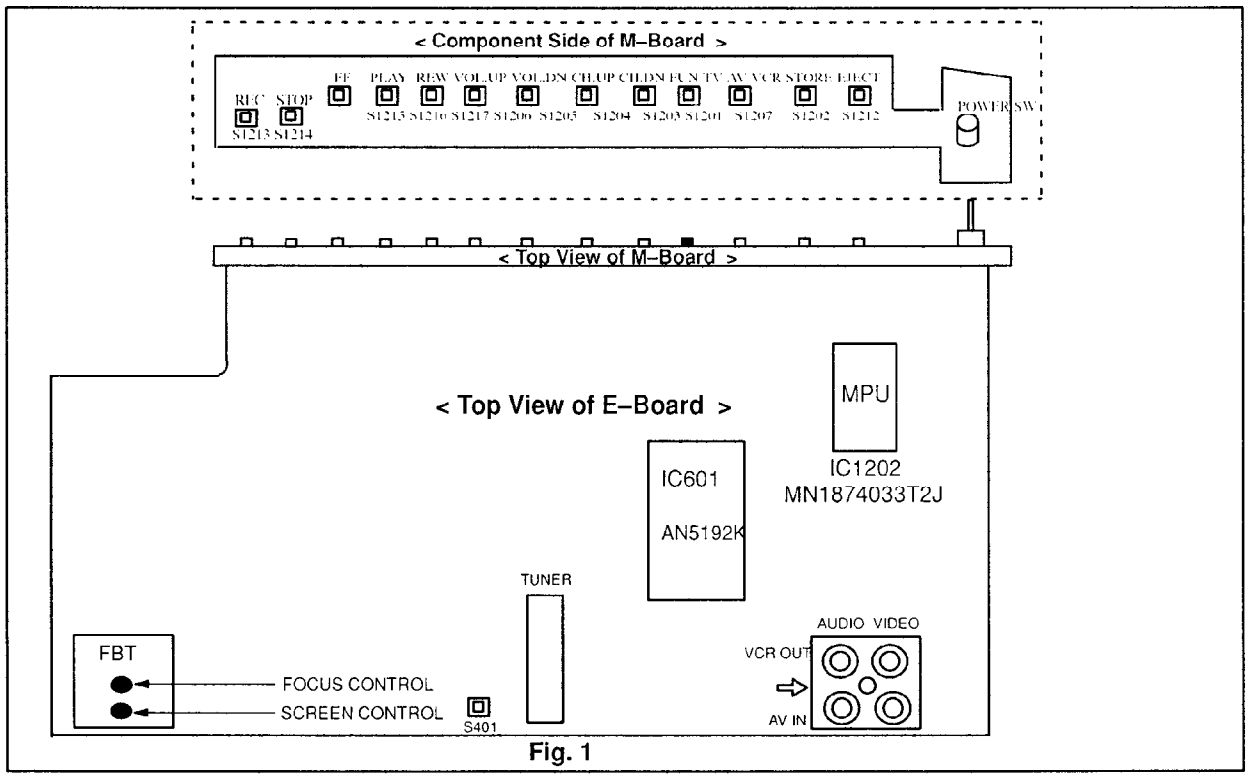


Fig. 1

2.Test points of TV

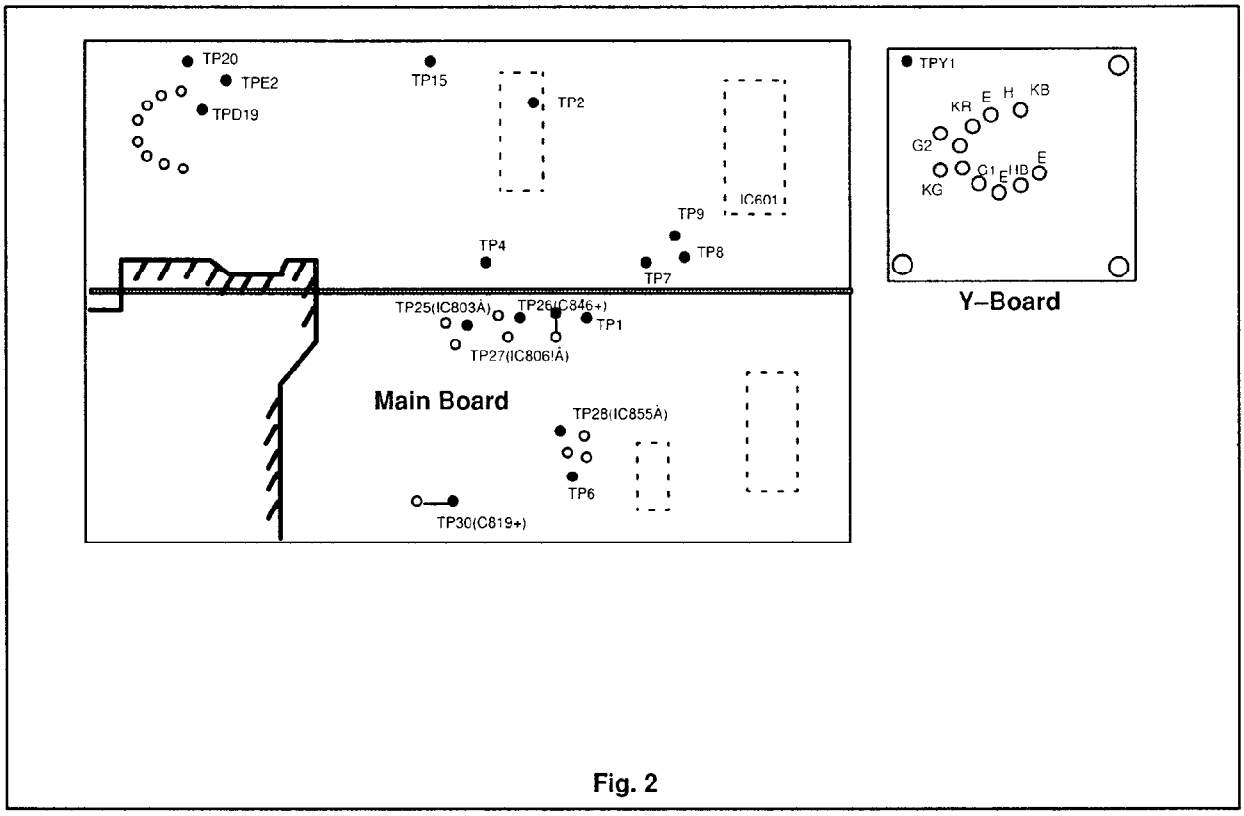


Fig. 2

1.Location of controls for VCR

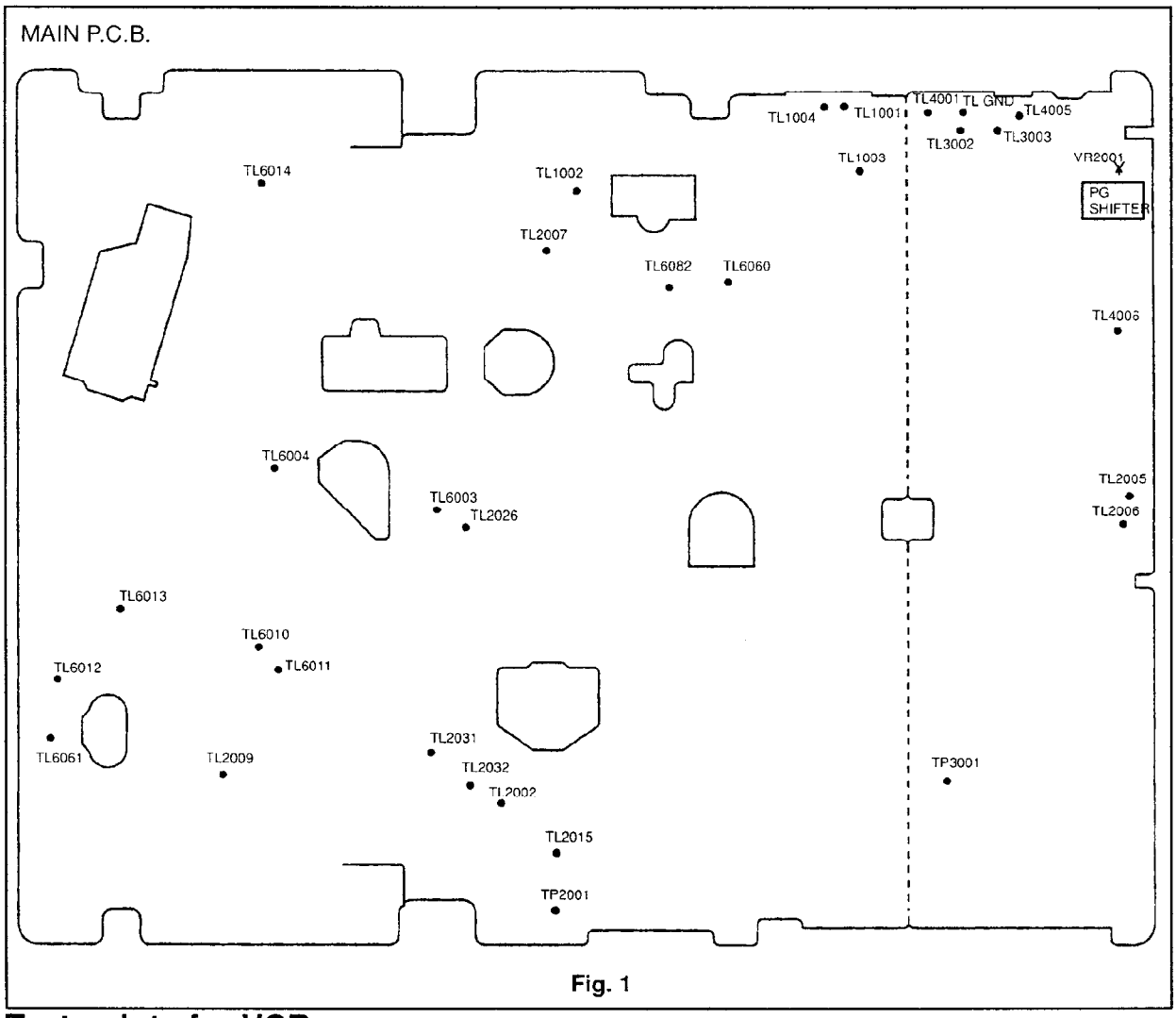


Fig. 1

2.Test points for VCR

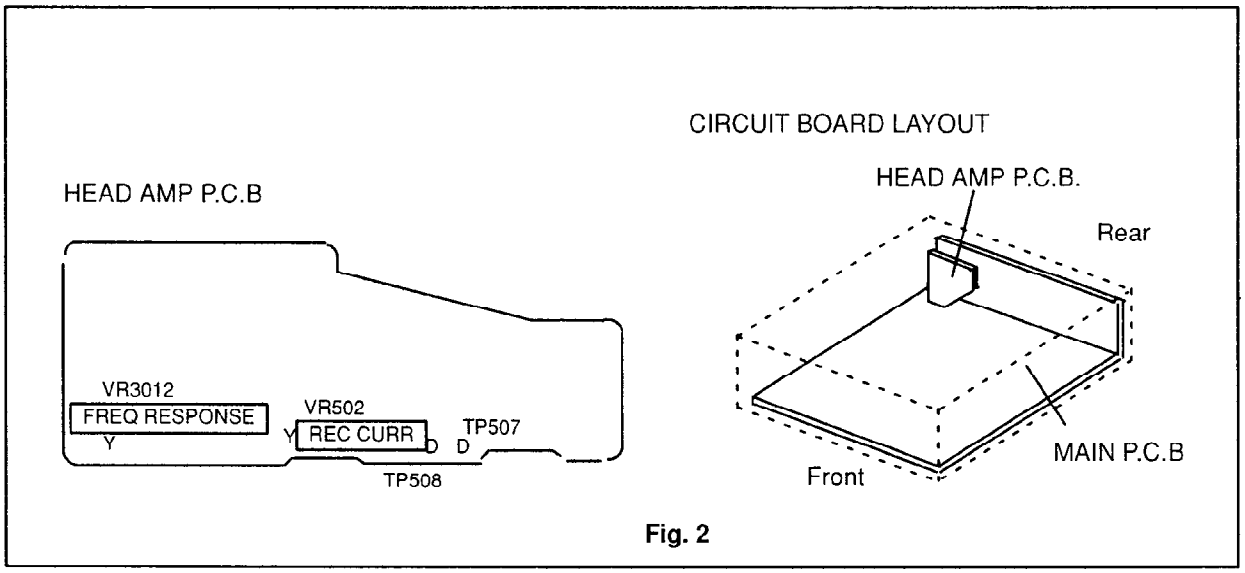
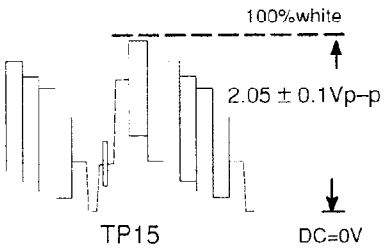
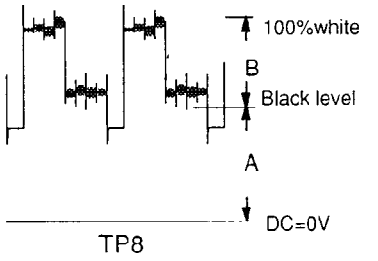


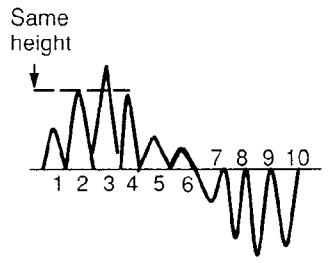
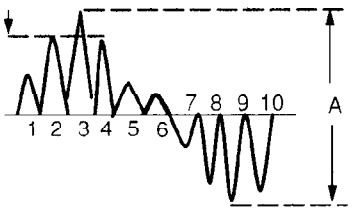
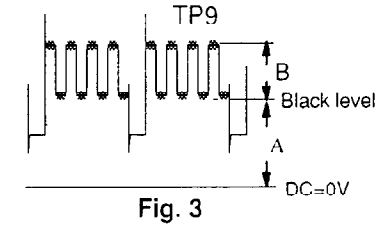
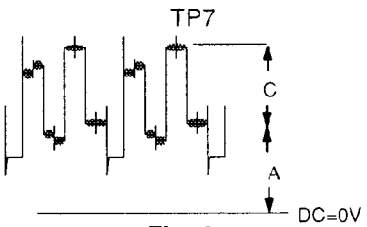
Fig. 2

Electrical Adjustments

1 Adjustment for TV

Item / Preparation	Adjustment Procedure
B Voltage Turn the power, and receive the Window pattern.. Set Beam to ZERO beam or, Set to Market mode CHK3 and set BRIGHT to Min. and press position 5 button to be Horizontal one line mode.	1. Confirm that the indicated test points for the specified voltage: TP 4 : 31.0 ± 2.0 V TP 26(C846+) : 5.0± 0.5 V TP 6 : 12.0 ± 1.0 V TP 27(IC806Â) : 9.0± 0.5 V TP 25(IC803À) :142.0± 2.0 V TP 20 : 200.0 ± 15.0 V TP 1 : 5.7 ± 0.5 V TP 28(IC855À) : 14.7±1.0V TP29 : 6.3 ± 0.5 V TP30(C819+) : 16.0± 2.0 V
High Voltage Turn the power, and receive the Window pattern. Set Beam to ZERO beam : Screen VR ..... minimum Contrast ..... minimum Connect a DC voltage meter to TP25 and confirm the voltage is 142.0 ± 2V.	1. Connect a high voltage meter (Electrostatic Type) to an anode of the picture tube. 2. Confirm that the high voltage is within the range of 24.5 (+ 0.7, −1.5) kV.
RF AGC Receive a colour bar pattern. Set the input level to 61 ± 1 dB. (75 Ω opened) Connect an oscilloscope to TP2 with DC mode.	1. Set the TV to MARKET MODE CHK2. 1. Adjust RF AGC by Bus controller *1 to make oscilloscope voltage just before the voltage drop. 2. Make sure that oscilloscope voltage drop when input level is 2dB up. *1 : Change Mode to CHK2, using remote control, Select AGC by 3 or 4 key. Adjust AGC by Volume + or – key.

Item / Preparation	Adjustment Procedure	Waveform
Video Detect Out Level Receive a colour bar pattern. Connect an oscilloscope to TP15.	IN the Market Mode(CHK2) for adjustments, select DAC adjustment. VIDEO DET OUT Adj. Adjust Video Detecotr Out by Bus controller for 2.05 ± 0.1V from sync tip to white level as shown in **Fig. 1**	 **Fig. 1**
Sub Contrast Receive a colour bar pattern. Connect an oscilloscope to TP8. Connect a short jumper between TPE2 and TP19. Set the "Picture menue" to Normal.	IN the Market Mode(CHK2) for adjustments, select DAC (Bright ad.) adjustment. Adjust for A by Bright Control : A=2.4 (+ 0.2, – 0.2) V IN the Market Mode(CHK2) for adjustments, select DAC (Sub contrast.) adjustment. Adjust for B by Sub Contrast control. B=2.5 (+ 0.1) V (Waveform should not be saturated.)	 **Fig. 2**

Item / Preparation	Adjustment Procedure	Waveform
Sub NTSC TINT Adjustment 1. Apply NTSC 3.58MHz rainbow pattern to AV input. 2. Connect an oscilloscope to TP7(R-OUT). 3. Connect a short jumper between TPE2 and TP19. 4. Select "STANDARD" mode using the picture menu button and normalize by pressing the "(N)" button.	1. IN the Market Mode(CHK2) for adjustments, select DAC (Sub Tint) adjustment. 2. Adjust Sub tint . so that level of No. 2, No.4 become **Fig. 1** .	 **Fig. 1**
NTSC Colour Output 1. Apply NTSC rainbow pattern to AV. 2. Connect an oscilloscope to TP7. 3. Connect a short jumper between TPE2 and TP19. 4. Select "STANDARD" mode using the picture menu button and normalize by pressing the "(N)" button.	1. IN the Market Mode(CHK2) for adjustments, select DAC (colour) adjustment. 1. Confirm colour max. level at at colour max condition. 1. Confirm that the amplitude of waveform**Fig. 2** A=1.1 ± 0.5 V_{0-p}	 **Fig. 2**
PAL Colour Output 1. Receive PAL colour bar pattern. 2. Connect an oscilloscope to TP9(B-out). 3. Connect a short jumper between TPE2 and TP19. 4. Select "STANDARD" mode using the picture menu button and normalize by pressing the "(N)" button.	1. IN the Market Mode(CHK2) for adjustments, select DAC(Sub colour) adjustment. . 2. Adjust for A by Bright Control **Fig. 3** : A=2.4 (+ 0.2, − 0.2) V_{p-p} 1. IN the Market Mode(CHK2) for adjustments, select DAC (Sub colour) adjustment. 2. Adjust B by Sub Colour control. B=2.5 ± 0.1 V_{p-p} 3. Connect the oscilloscope to TP7(R-out). 4. Confirm that the amplitude of wave form C is**Fig. 4** . : C=3.2 (+ 0.7, − 0.3)V_{p-p}	 **Fig. 3**  **Fig. 4**

Before Colour Purity, Convergence and White Balance adjustments are attempted, V. Center, V. Height, H. Width, H. Center and Focus adjustments must be completed.

Colour Purity (MARKET MODE CHK 3)

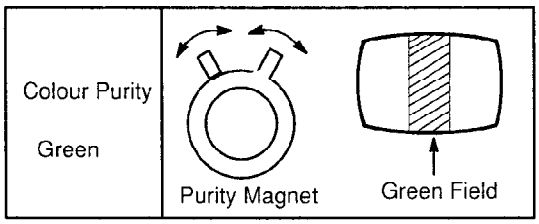
1. Set Bright and Contrast controls to their maximum positions.
2. Operate the TV set over 15 minutes.
3. Fully degauss the picture tube by using an external degaussing coil.
4. Apply a crosshatch pattern signal and adjust roughly the static convergence magnets.
5. Receive a black and white signal.
1. IN the Market Mode(CHK3) for adjustments, select DAC adjustment.
2. Set CUTOFF controls as following Data :

   Red (R–CUTOFF) min.
   Green (G–CUTOFF) ... Max.
   Blue (B–CUTOFF) ..... min.

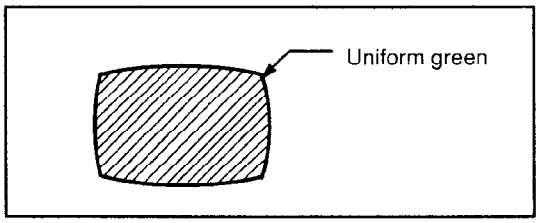
3. Set Drive controls as following Data :

   Red (R–DRIVE) 128
   Blue (B–DRIVE) 128

4. Loosen a clamp screw for the deflection yoke and move the deflection yoke as close to the purity magnet as possible.
5. Adjust the purity magnet so that a vertical green field is obtained at center of the screen.



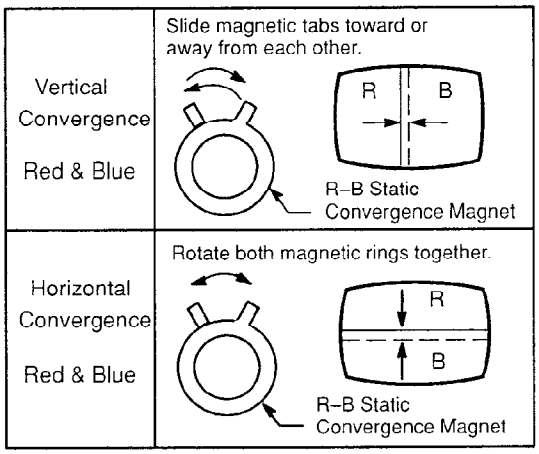
6. Slowly press the deflection yoke and set it where a uniform green field is obtained.



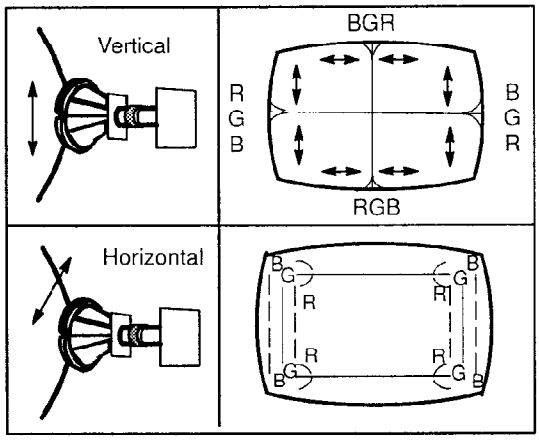
7. Adjust roughly the Low Light controls(R, B Drive) and make sure that a uniform white field is obtained.
8. Tighten the clamp screw.

Convergence (MARKET MODE CHK 3)

1. Apply a crosshatch pattern signal and set Contrast control to the maximum position.
2. Adjust Bright control to obtain a clear pattern.
3. Adjust Red and Blue line at center of the screen by rotating R–B static convergence magnet.



4. Adjust Red and Blue with Green line at center of the screen by rotating (RB) – G static convergence magnet.
5. Lock convergence magnets with silicone sealer.
6. Remove the DY wedges and slightly tilt the deflection yoke the vertically and horizontally to obtain the good overall convergence.



7. Fix the deflection yoke by reinserting the DY wedges. **NO TAG**
8. If purity error is found, repeat "Colour Purity" adjustment.

White Balance (MARKET MODE CHK 3)

Preparation

1. Receive a colour bar signal with colour "OFF", and operate the TV set more than 15 minutes.,
2. Set the picture menu to "STANDARD" normal and the screen control (part of FBT) to minimum.
3. Connect an oscilloscope to TPY1 with DC mode.
4. IN the Market Mode(CHK3) for adjustments, select DAC adjustment.
5. Set CUTOFF controls as following Data :
   Red (R–CUTOFF) 48
   Green (G–CUTOFF) ... 24
   Blue (B–CUTOFF) 48
6. Set Drive controls as following Data :
   Red (R–DRIVE) 128
   Blue (B–DRIVE) 128

Adjustment

7. Select G–CUTOFF adjustment mode and collapse vertical scan .(Refer to page 16 item17)
8. Observe oscilloscope waveform at Horizontal rate and adjust Market Mode Sub Bright DAC for scanning period to be 160 ± 2V above DC ground as shown in **Fig. 1**

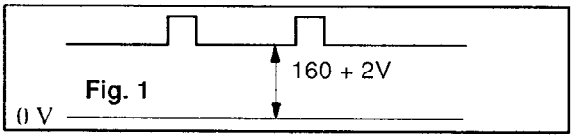
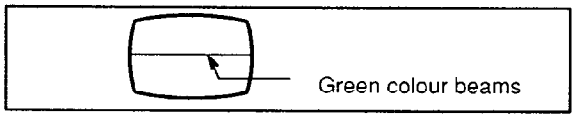
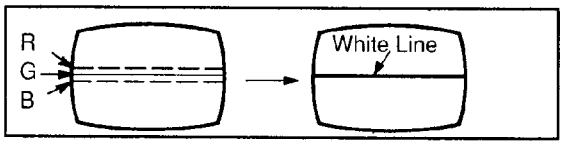


Fig. 1

9. Slowly turn the screen control clockwise until a green colour horizontal line appears on the picture tube. This is the setting point for the screen control,
   Note that do not adjust the G–CUTOFF DAC setting in the following procedure.



10. Adjust the remained R and B–CUTOFF DAC controls so as to get a white horizontal line on the screen.



11. Return to full field SCAN by pressing 5 key on the remote control.
12. IN the Market Mode(CHK3) for adjustments, select DAC adjustment. (R, B DRIVE)
13. Adjust the R–Drive and B–Drive DAC controls as to obtain uniform white on the white bar of the greyscale pattern.
14. Confirm correct B/W rendition and greyscale tracking or repeat CUTOFF and drive control set up.

Note : Write down the original value for each address Data adjustment before adjusting anything.

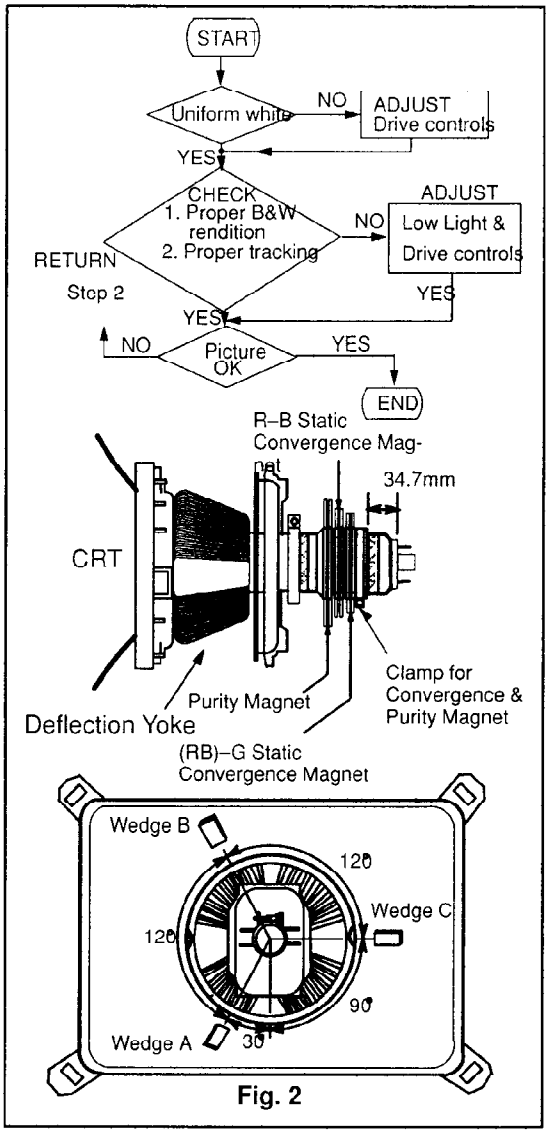


Fig. 2

15. Wedge A shown in **Fig. 2** should be fixed within a range of 60 ° to the left of the vertical line as shown.
16. After inserting wedge A, insert wedges B and C. The wedges should be set 120° apart from each other.
17. Be certain that the four wedges are firmly fixed and the Deflection Yoke is tightly clamped in place. Otherwise the Deflection Yoke may shift its position and cause a loss of convergence and purity.

1 Adjustment Procedure for VCR

This section provides complete electrical adjustment procedures which may be required for electric circuits of VHS Video Cassette Recorders.

1 –1 Test equipments

To perform the electrical adjustments completely, following equipments are required.

1. Dual – Trace oscilloscope. (More than 35 MHz)
   Voltage Range : 0.005 – 5V / div.
   Frequency Range : DC – 35 MHz
   Probes : 10 :1
2. Vacuum Tube Volt Meter. (V. T. V. M.)
3. Video Sweep Generator.
4. Video Pattern Generator
5. VHS Alignment Tape. (VFJ8125H3F)
6. VHS Blank Tape.
7. Monitor
8. Plastic Tip Driver

1 –2 Preparation

During adjustments, set each selector as follows when no indication on each procedures.

1. TV / VCR SW ——— VTR
2. INPUT SW ——— LINE

1 –3 How to read adjustment procedure

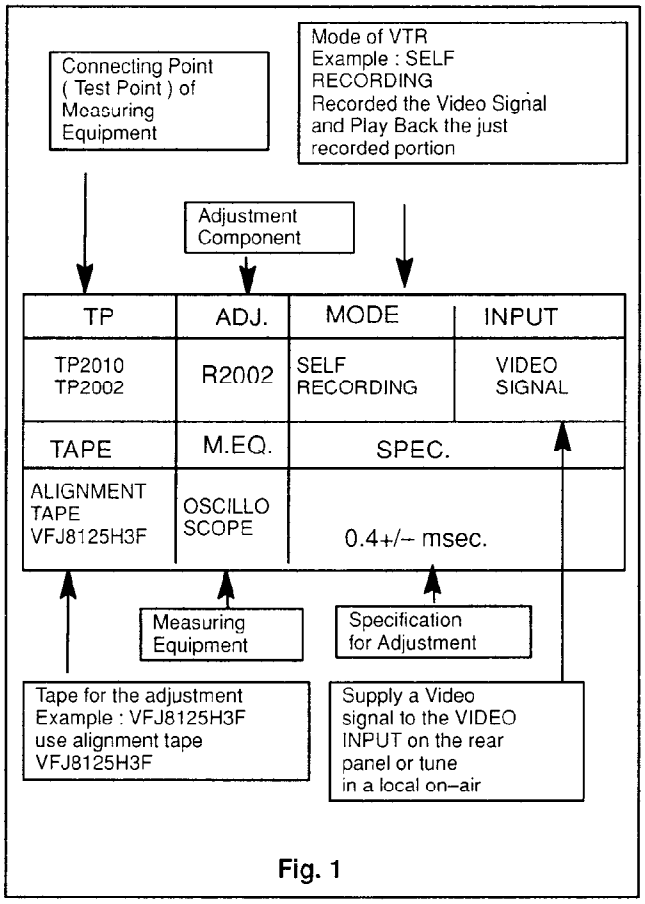

Connecting Point (Test Point) of Measuring Equipment
Mode of VTR Example : SELF RECORDING Recorded the Video Signal and Play Back the just recorded portion
Adjustment Component
TP
ADJ.
MODE
INPUT
TP2010 TP2002
R2002
SELF RECORDING
VIDEO SIGNAL
TAPE
M.EQ.
SPEC.
ALIGNMENT TAPE VFJ8125H3F
OSCILLO SCOPE
0.4+/– msec.
Measuring Equipment
Specification for Adjustment
Tape for the adjustment Example : VFJ8125H3F use alignment tape VFJ8125H3F
Supply a Video signal to the VIDEO INPUT on the rear panel or tune in a local on–air

Fig. 1

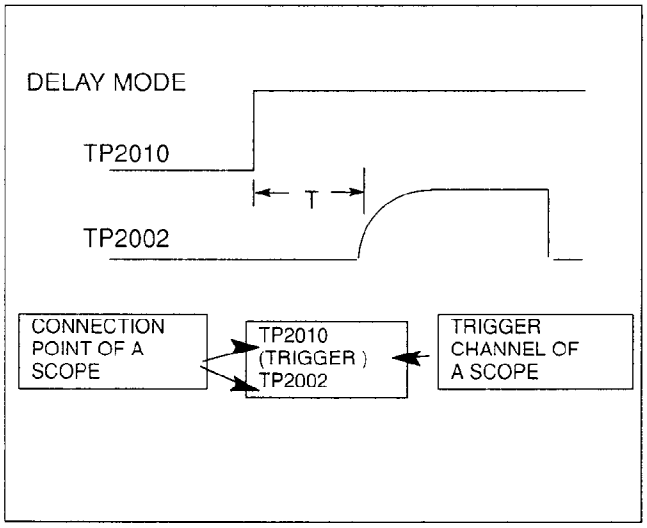


Fig. 2

1 –1 Servo Section

1)PG Shifter Adjustment

TP	ADJ.	MODE	INPUT
TP2001 TL3002 (V–OUT)	VR2001	PLAY- BACK	
TAPE	**M.EQ**	**SPEC.**	
AlighmentTape (VFJ8125H3F)	Oscilloscope	6.5 + – 0.5 (H)	

1. Connect the oscilloscope to TP2001 (H.SW) and TL3002 (V. OUT).
2. Playback the alignment tape.
3. Adjust VR2001 so that phase difference between falling edge of Head SW pulse and V – sync becomes 6.5 ± 0.5 (H).

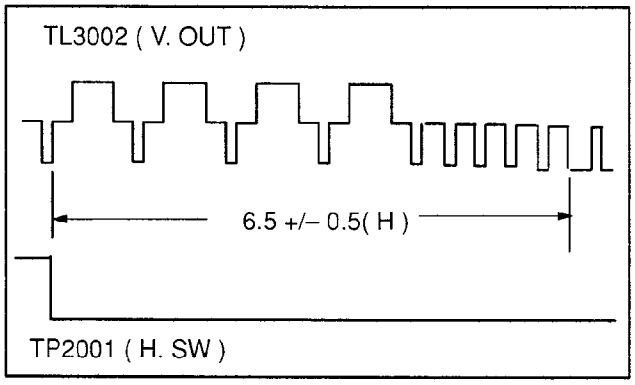


Fig. 1

1 –2 Luminance and Chrominance section

1) Recording current adjustment

TP	ADJ.	MODE	INPUT
TP507(HOT) TP508(GND)	VR3001 (Y) VR8001 (C)	SP Record- ing	PAL Colour Bar
TAPE	**M.EQ**	**SPEC.**	
Blank Tape	Oscilloscope	Y : 130 + – 5 (mVp–p) C : 32 + – 2 (mVp–p)	

1. Record the PAL colour bar in SP mode. Connect the oscilloscope to TP507(HOT) and TP508 (GND).
2. Supply +5V DC to pin 4 of PP3001 reduce luminance component.
3. Adjust VR502 so that the amplitude of Cyan becomes 30 ± 2mVp–p.

2)Video frequency response adjustment

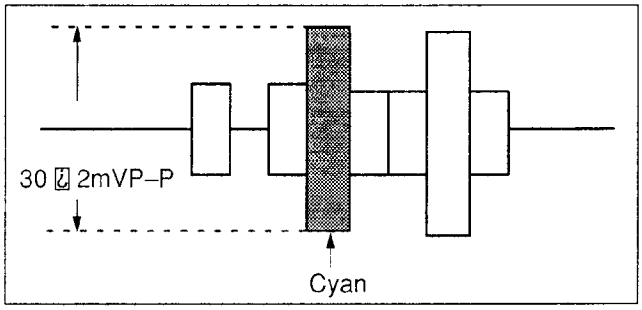


Fig. 2

TP	ADJ.	MODE	INPUT
VIDEO OUT TL3002	VR3012	SELF RECORDED /PLAYBACK	PAL VIDEO SEEP SIGNA(VIDEO IN)
TAPE	M.EQ.	SPEC.	
BLANK TAPE	OSCILLOSCOPE VIDEO SWEEP GENERATOR	1 ☐ 1 (dbB) (100% ~ 120%)	

Note :

Set the Video Sweep signal sa show.n in fig D5.

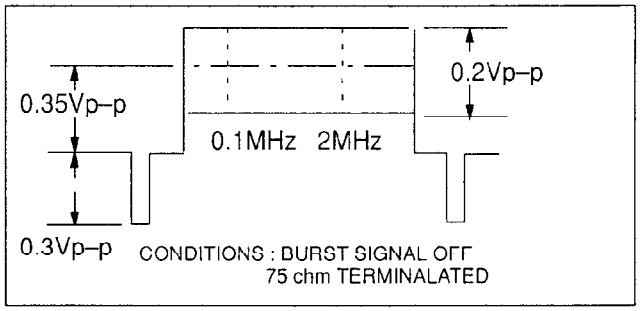


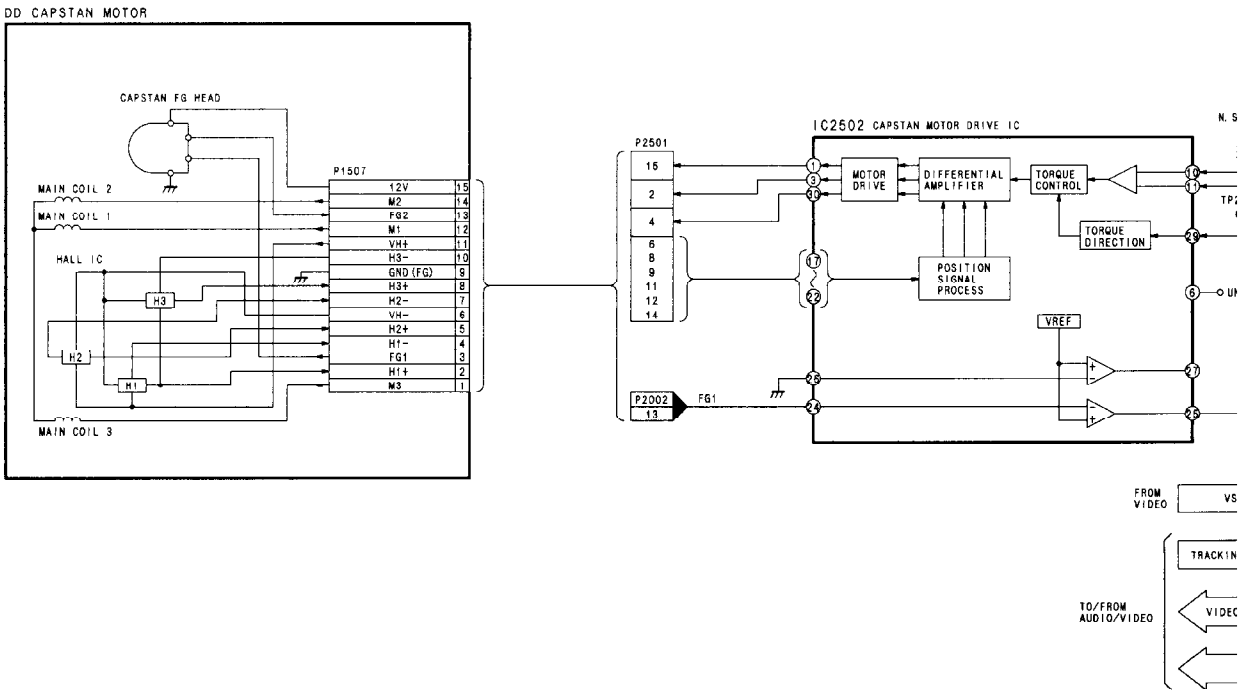
Fig. 3

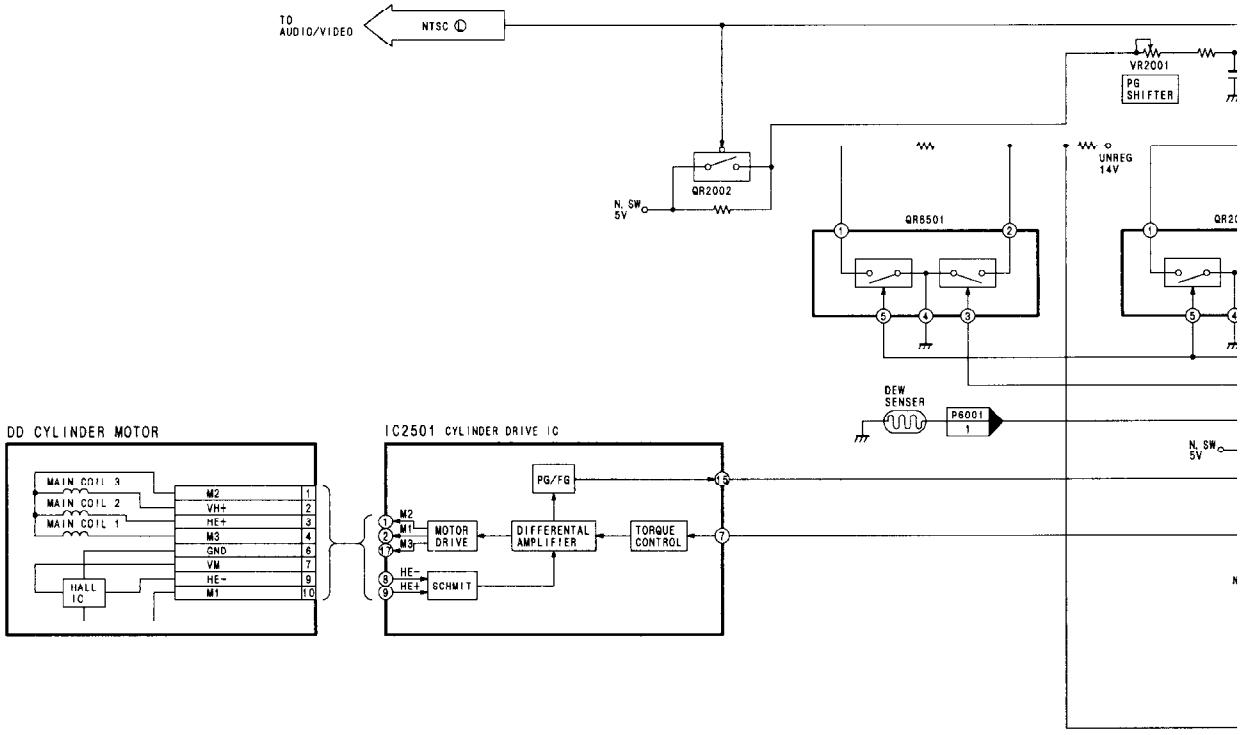
1. Record the PAL Video Sweep Signal for few time and playback the just recorded portion.
2. connect the oscilloscope to TL3002.
3. Adjust VR3012 so that the frequency response becomes 1 ± 1dB on 2MHz portion compare with 0.1MHz portion.

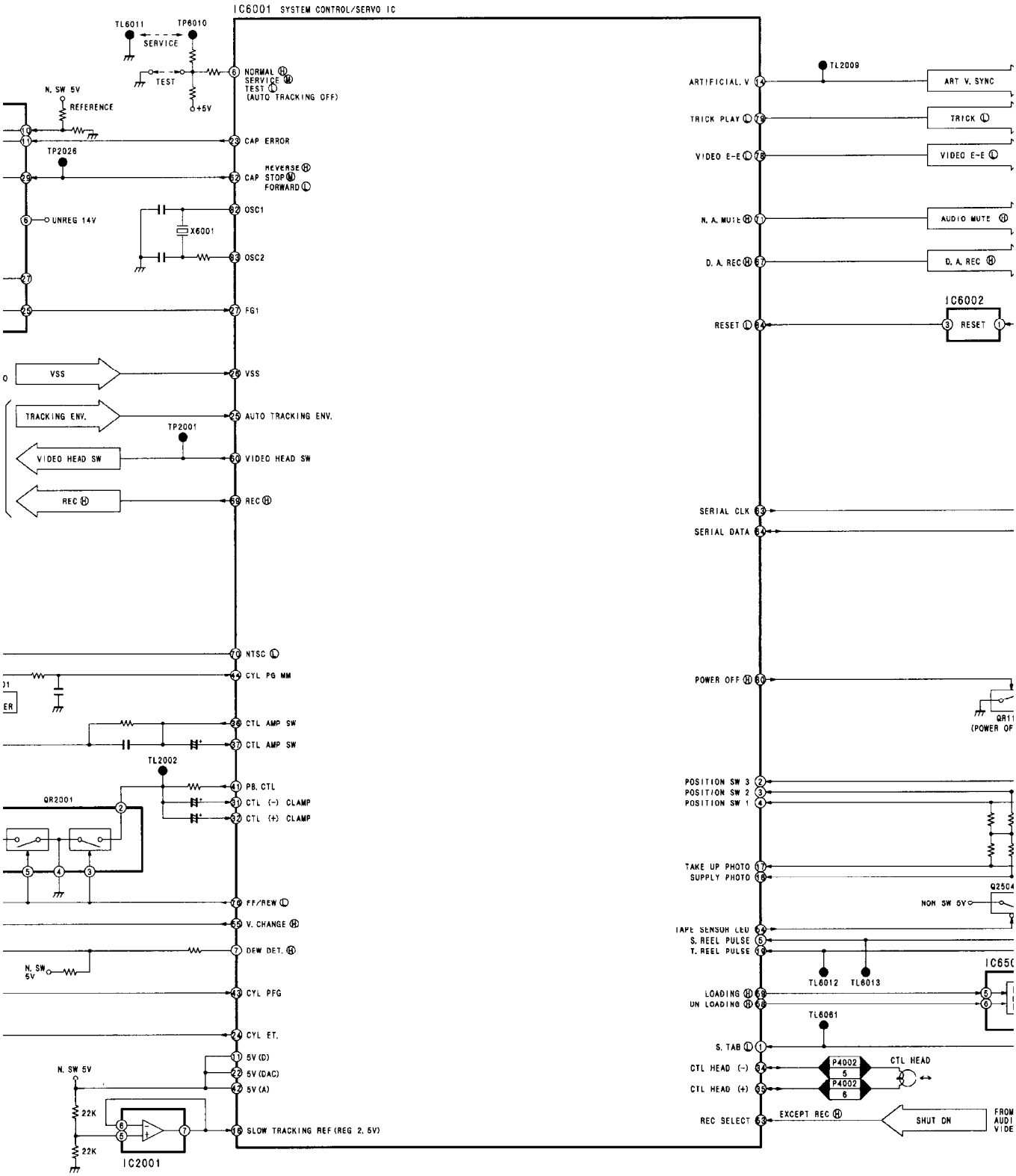
Block Diagrams

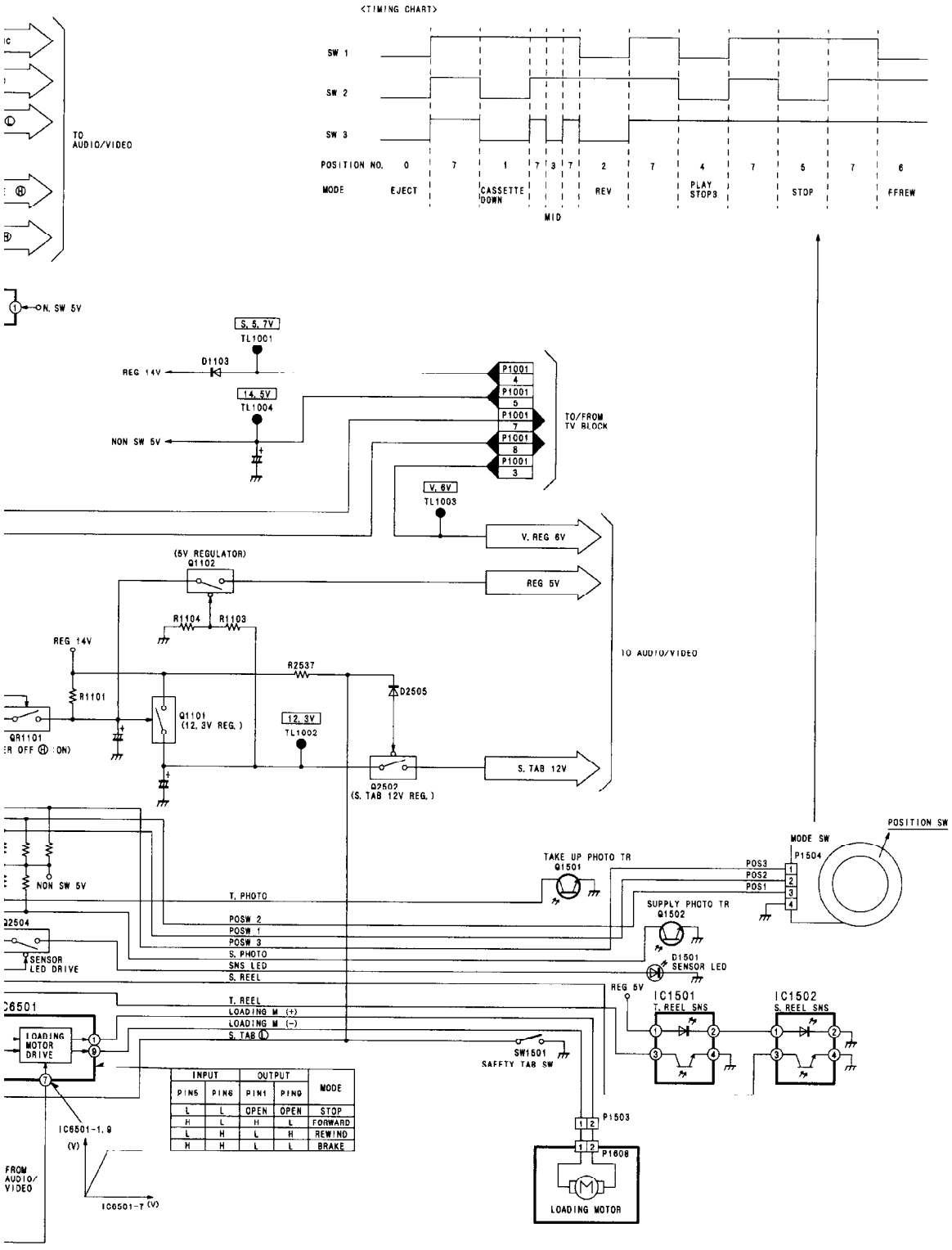
VCR Section

System Control & Servo Block (VCR Block)

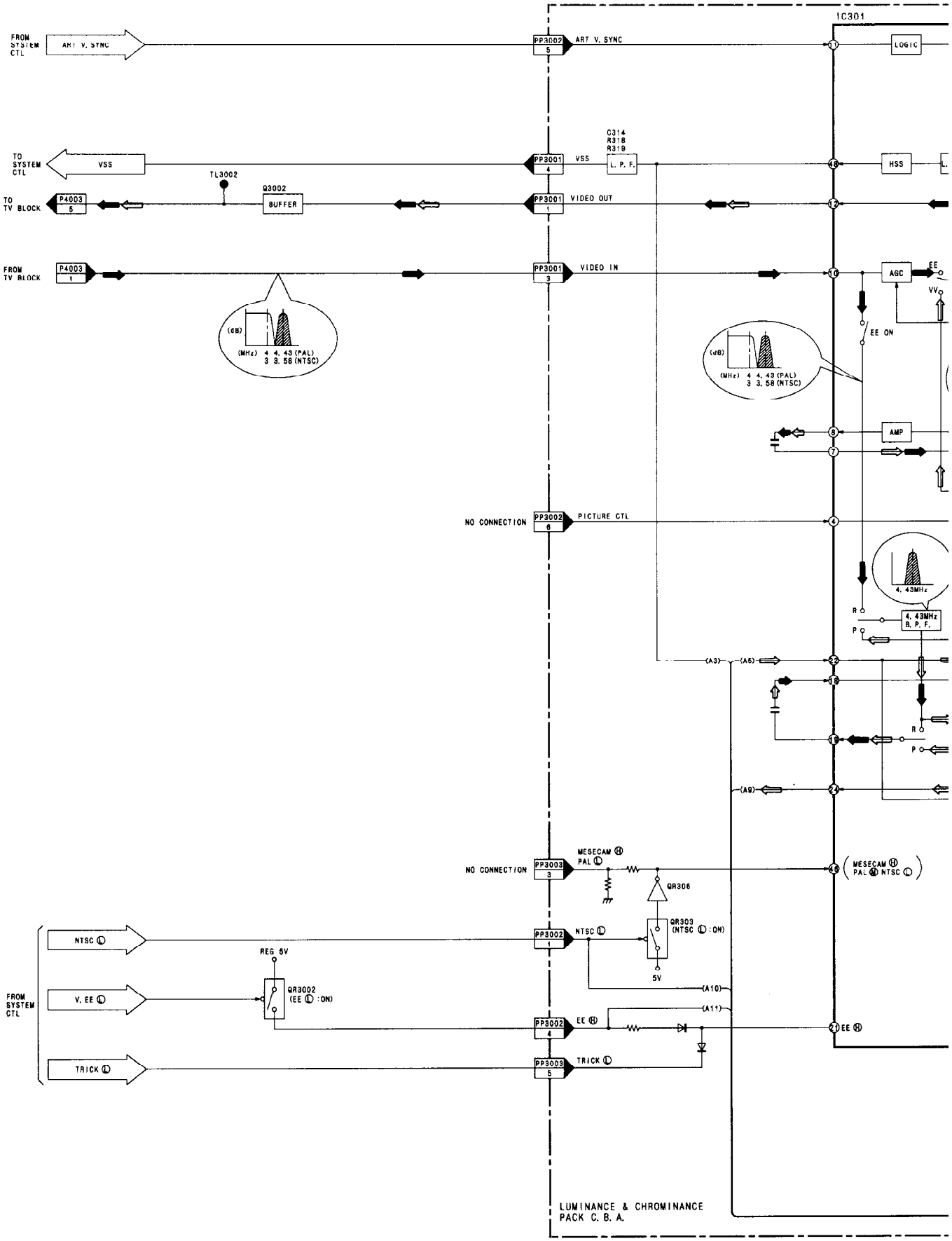


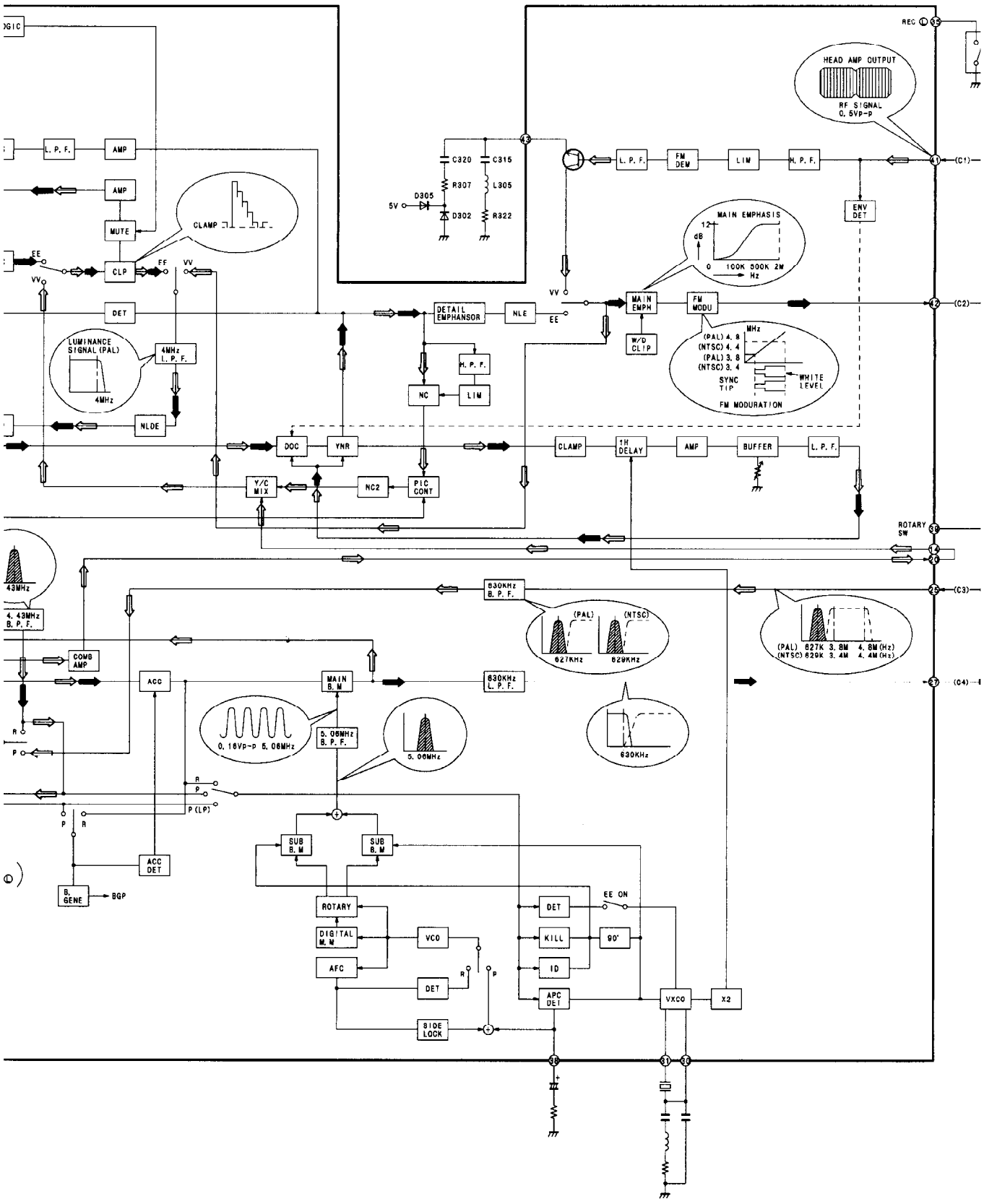


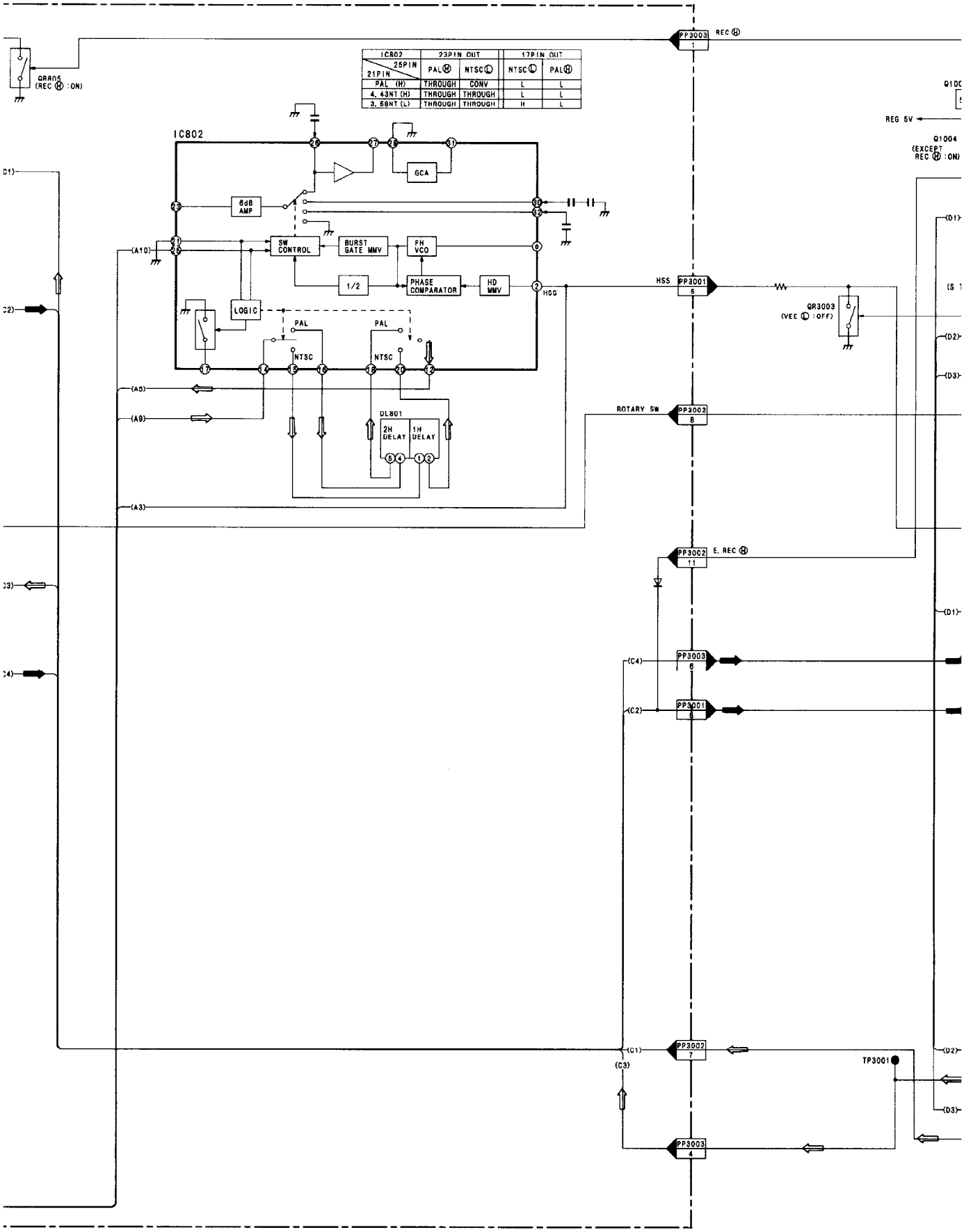

IC6001 SYSTEM CONTROL/SERVO IC
TL6011
TP6010
SERVICE
TEST
+5V
N. SW 5V
REFERENCE
TP2026
UNREG 14V
X6001
VSS
TRACKING ENV.
TP2001
VIDEO HEAD SW
REC H
TL2002
QR2001
N. SW 5V
22K
22K
IC2001
6 NORMAL H SERVICE M TEST L (AUTO TRACKING OFF)
23 CAP ERROR
32 REVERSE H CAP STOP M FORWARD L
62 OSC1
63 OSC2
27 FG1
26 VSS
25 AUTO TRACKING ENV.
60 VIDEO HEAD SW
59 REC H
70 NTSC L
44 CYL PG MM
28 CTL AMP SW
37 CTL AMP SW
41 PB. CTL
31 CTL (-) CLAMP
32 CTL (+) CLAMP
79 FF/REW L
55 V. CHANGE H
7 DEW DET. H
43 CYL PFG
24 CYL FT.
1 5V (D)
22 5V (DAC)
42 5V (A)
18 SLOW TRACKING REF (REG 2. 5V)
TL2009
ARTIFICIAL. V 14
TRICK PLAY L 78
VIDEO E-E L 78
N. A. MUTE H 7
D. A. REC H 57
RESET L 64
ART V. SYNC
TRICK L
VIDEO E-E L
AUDIO MUTE H
D. A. REC H
IC6002
RESET
SERIAL CLK 63
SERIAL DATA 64
POWER OFF H 80
POSITION SW 3 2
POSITION SW 2 3
POSITION SW 1 4
TAKE UP PHOTO 17
SUPPLY PHOTO 16
TAPE SENSOR LED 54
S. REEL PULSE 5
T. REEL PULSE 10
LOADING H 59
UN LOADING H 58
S. TAB L 1
CTL HEAD (-) 34
CTL HEAD (+) 35
REC SELECT 53
TL6012
TL6013
TL6061
P4002 5
P4002 6
CTL HEAD
EXCEPT REC H
SHUT DN
Q2504
NOM SW 0V

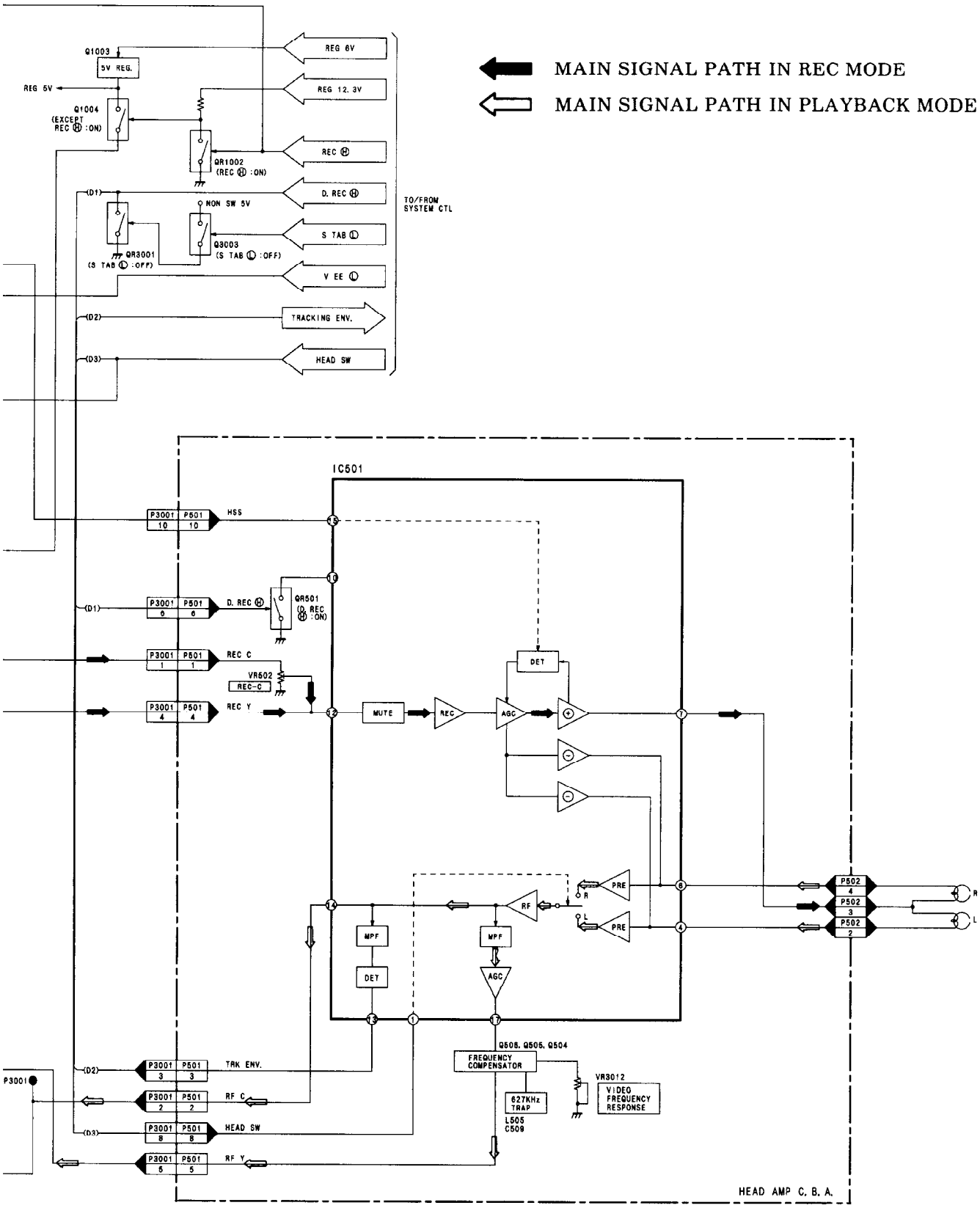

<TIMING CHART>
SW 1
SW 2
SW 3
POSITION NO. 0 7 1 7 3 7 2 7 4 7 5 7 6
MODE EJECT CASSETTE DOWN MID REV PLAY STOP3 STOP FFREW
TO AUDIO/VIDEO
ON, SW 5V
S. 5. 7V
TL1001
D1103
REG 14V
14. 5V
TL1004
NON SW 5V
P1001 4
P1001 5
P1001 7
P1001 8
P1001 3
TO/FROM TV BLOCK
V. 6V
TL1003
V. REG 6V
(5V REGULATOR)
Q1102
REG 5V
R1104
R1103
REG 14V
R1101
R2537
D2505
Q1101
(12. 3V REG.)
12. 3V
TL1002
S. TAB 12V
Q2502
(S. TAB 12V REG.)
TO AUDIO/VIDEO
MODE SW
P1504
POSITION SW
POS3
POS2
POS1
TAKE UP PHOTO TR
Q1501
SUPPLY PHOTO TR
Q1502
D1501
SENSOR LED
T. PHOTO
POSW 2
POSW 1
POSW 3
S. PHOTO
SNS LED
S. REEL
T. REEL
LOADING M (+)
LOADING M (-)
S. TAB
REG 5V
IC1501
T. REEL SNS
IC1502
S. REEL SNS
SW1501
SAFETY TAB SW
P1503
P1608
LOADING MOTOR
LOADING MOTOR DRIVE
IC6501-1, 9 (V)
IC6501-7 (V)
FROM AUDIO/VIDEO
INPUT PIN5 PIN6
OUTPUT PIN1 PIN9
MODE
L L OPEN OPEN STOP
H L H L FORWARD
L H L H REWIND
H H L L BRAKE

Luminance & Chrominance Block (VCR Block)

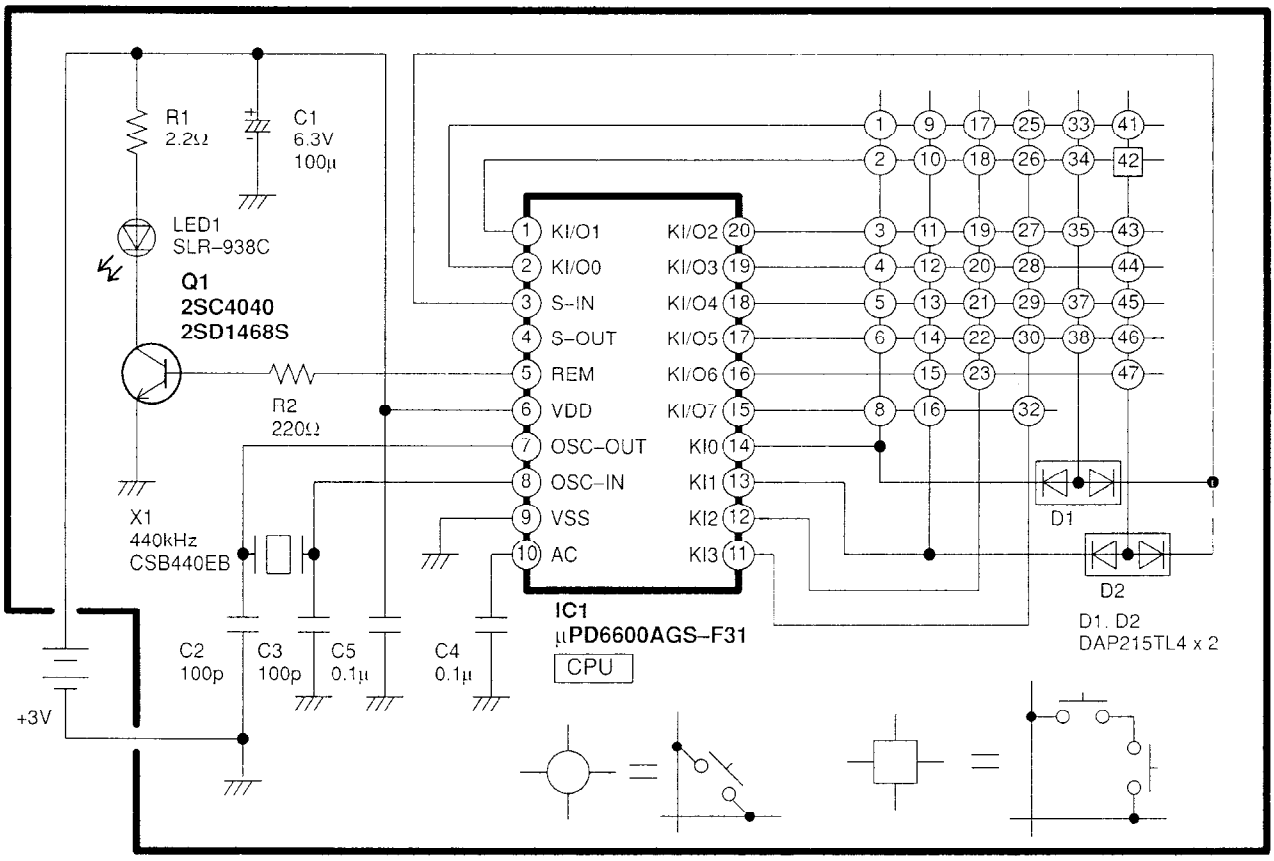



REC
HEAD AMP OUTPUT
RF SIGNAL
0, 5Vp-p
L. P. F.
AMP
FM DEM
LIM
H. P. F.
ENV DET
C320
C315
R307
L305
D305
D302
R322
5V
MAIN EMPHASIS
dB
0 100K 500K 2M Hz
MUTE
CLAMP
CLP
EE
FF
VV
DET
DETAIL EMPHANSOR
NLE
MAIN EMPH
FM MODU
W/D CLIP
LUMINANCE SIGNAL (PAL)
4MHz
4MHz L. P. F.
NLDE
H. P. F.
NC
LIM
MHz
(PAL) 4. 8
(NTSC) 4. 4
(PAL) 3. 8
(NTSC) 3. 4
SYNC TIP
WHITE LEVEL
FM MODURATION
DOC
YNR
CLAMP
1H DELAY
AMP
BUFFER
L. P. F.
Y/C MIX
NC2
PIC CONT
ROTARY SW
43MHz
4. 43MHz B. P. F.
630KHz B. P. F.
(PAL)
(NTSC)
627KHz
629KHz
(PAL) 627K 3. 8M 4. 8M (Hz)
(NTSC) 629K 3. 4M 4. 4M (Hz)
COMB AMP
ACC
MAIN B. M
630KHz L. P. F.
0. 16Vp-p 5. 06MHz
5. 06MHz B. P. F.
5. 06MHz
630KHz
R
P
P (LP)
ACC DET
B. GENE
BGP
SUB B. M
SUB B. M
ROTARY
DIGITAL M. M
AFC
VCO
DET
SIDE LOCK
EE ON
DET
KILL
ID
APC DET
90°
VXCO
X2
(C1)
(C2)
(C3)
(C4)


IC802
25PIN
21PIN
23PIN OUT
17PIN OUT
PAL Ⓗ
NTSC Ⓛ
PAL (H) THROUGH CONV L L
4. 43NT (H) THROUGH THROUGH L L
3. 58NT (L) THROUGH THROUGH H L
GCA
6dB AMP
SW CONTROL
BURST GATE MMV
FH VCO
1/2
PHASE COMPARATOR
HD MMV
LOGIC
PAL
NTSC
DL801
2H DELAY
1H DELAY
QR805 (REC Ⓗ : ON)
QR3003 (VEE Ⓛ : OFF)
REC Ⓗ
REG 5V
Q1004 (EXCEPT REC Ⓗ : ON)
HSS
HSG
ROTARY SW
E. REC Ⓗ
TP3001
PP3003
PP3001
PP3002
(A10)
(A5)
(A9)
(A3)
(C1)
(C2)
(C3)
(C4)
(D1)
(D2)
(D3)


MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
Q1003
5V REG.
REG 5V
Q1004
(EXCEPT REC Ⓗ :ON)
QR1002
(REC Ⓗ :ON)
REG 6V
REG 12.3V
REC Ⓗ
D. REC Ⓗ
NON SW 5V
Q3003
(S TAB Ⓛ :OFF)
QR3001
(S TAB Ⓛ :OFF)
S TAB Ⓛ
V EE Ⓛ
TRACKING ENV.
HEAD SW
TO/FROM SYSTEM CTL
(D1)
(D2)
(D3)
IC501
P3001 10 P501 10 HSS
P3001 6 P501 6 D. REC Ⓗ
QR501 (D. REC Ⓗ :ON)
P3001 1 P501 1 REC C
VR502 REC-C
P3001 4 P501 4 REC Y
MUTE
REC
AGC
DET
PRE
RF
MPF
DET
MPF
AGC
P502 4
P502 3
P502 2
R
L
P3001 3 P501 3 TRK ENV.
P3001 2 P501 2 RF C
P3001 8 P501 8 HEAD SW
P3001 5 P501 5 RF Y
P3001
Q506, Q505, Q504
FREQUENCY COMPENSATOR
627KHz TRAP
L505
C509
VR3012
VIDEO FREQUENCY RESPONSE
HEAD AMP C. B. A.

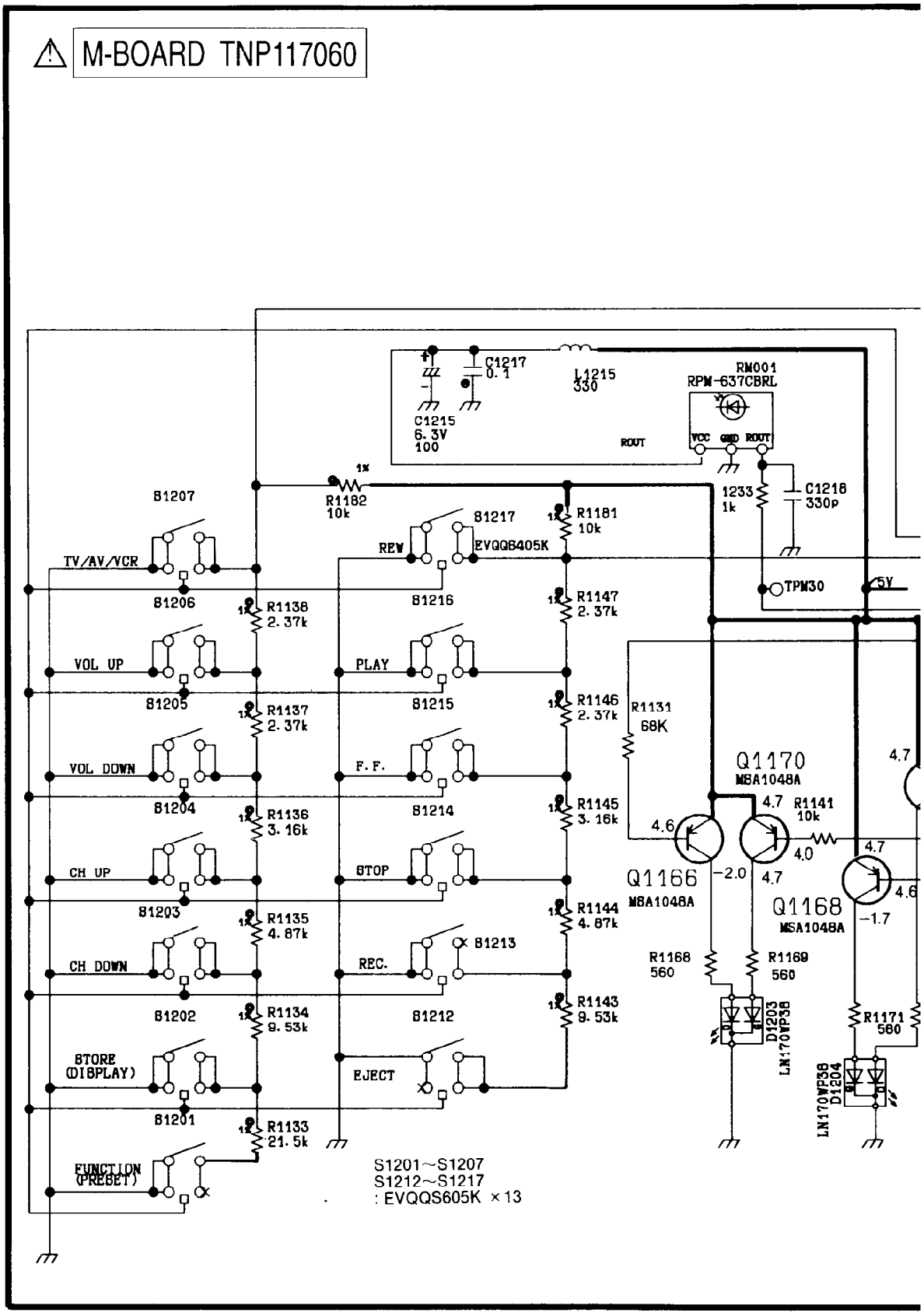
Remote Controller TNQ10481

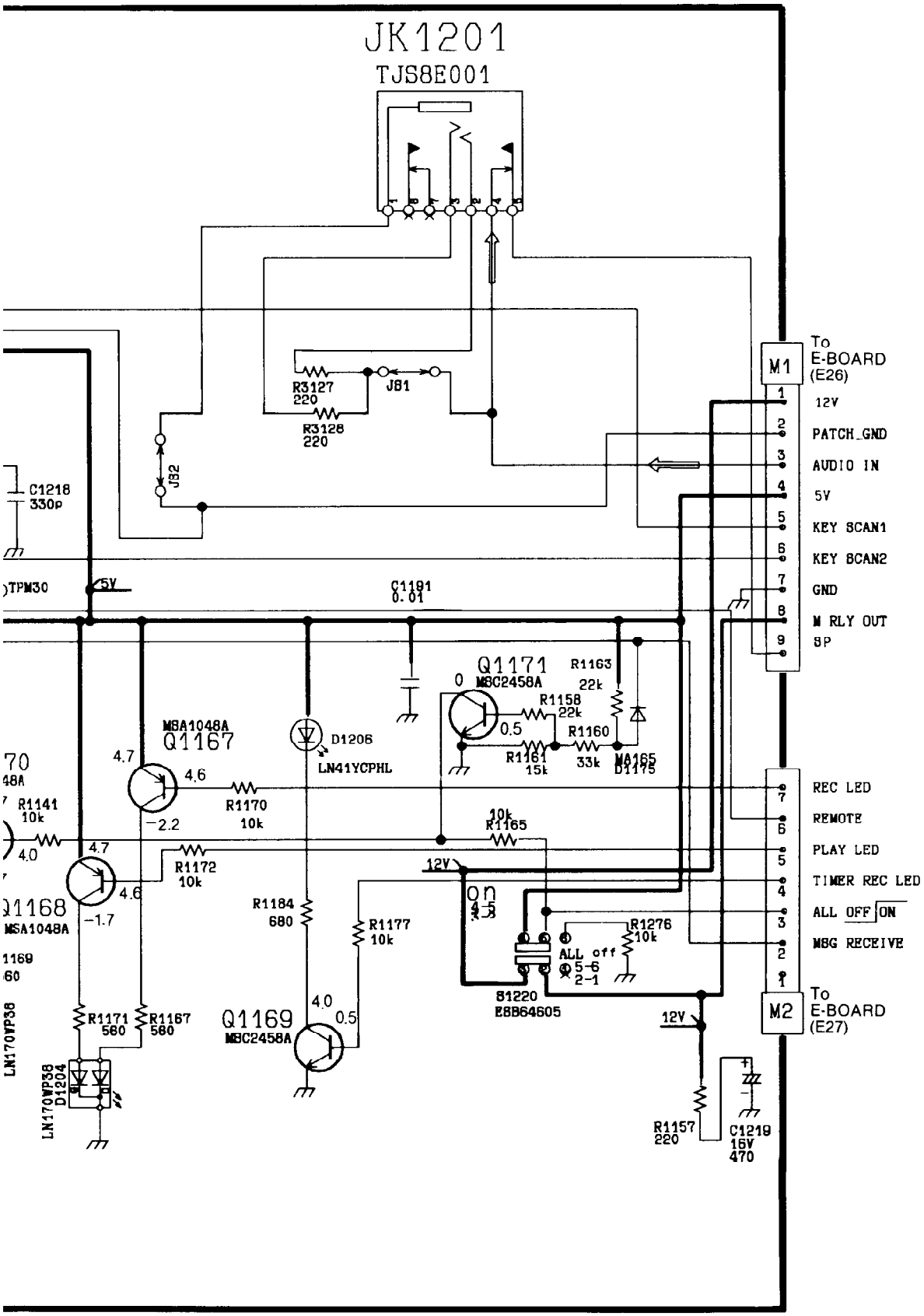


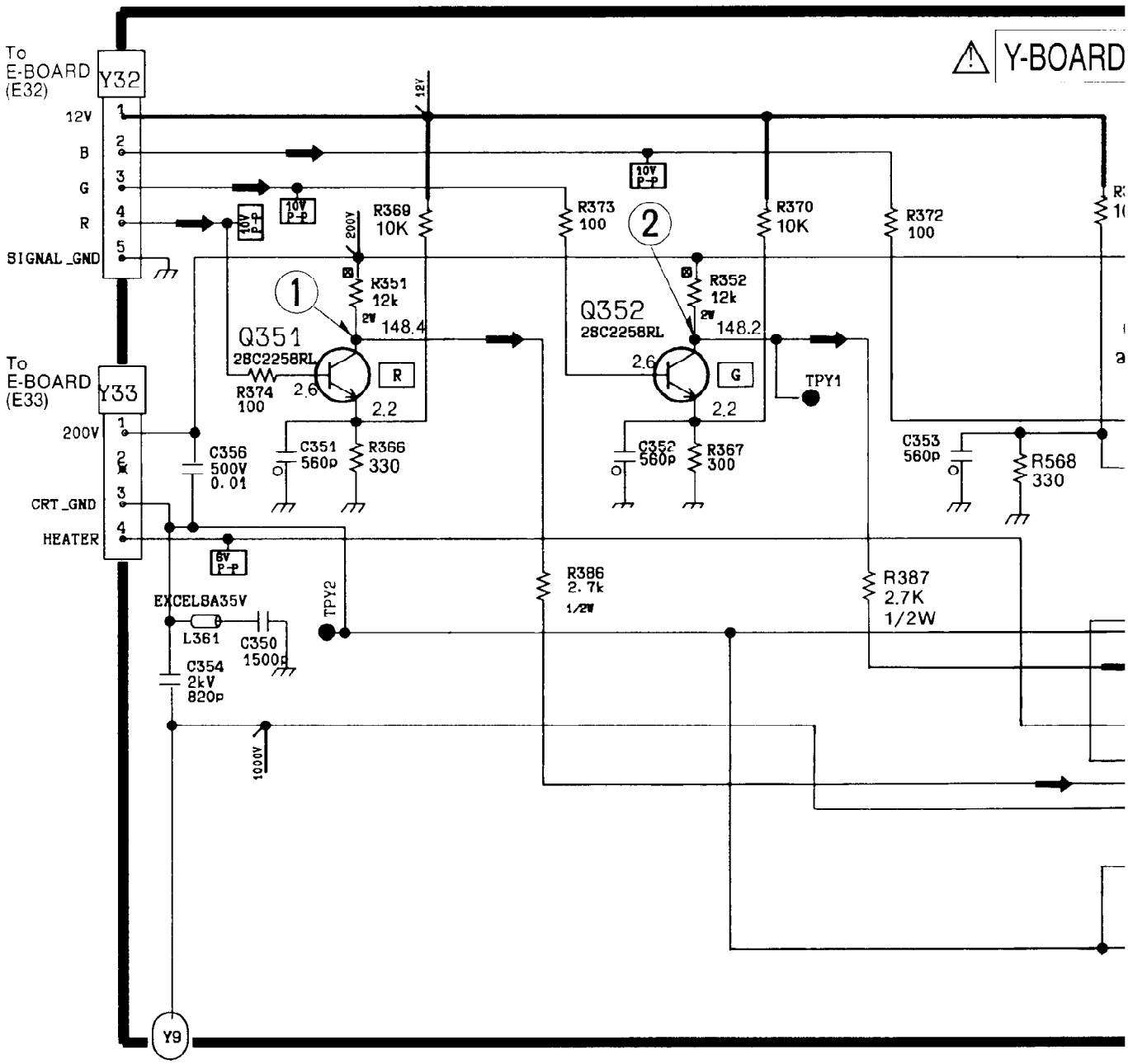
Key Function Table

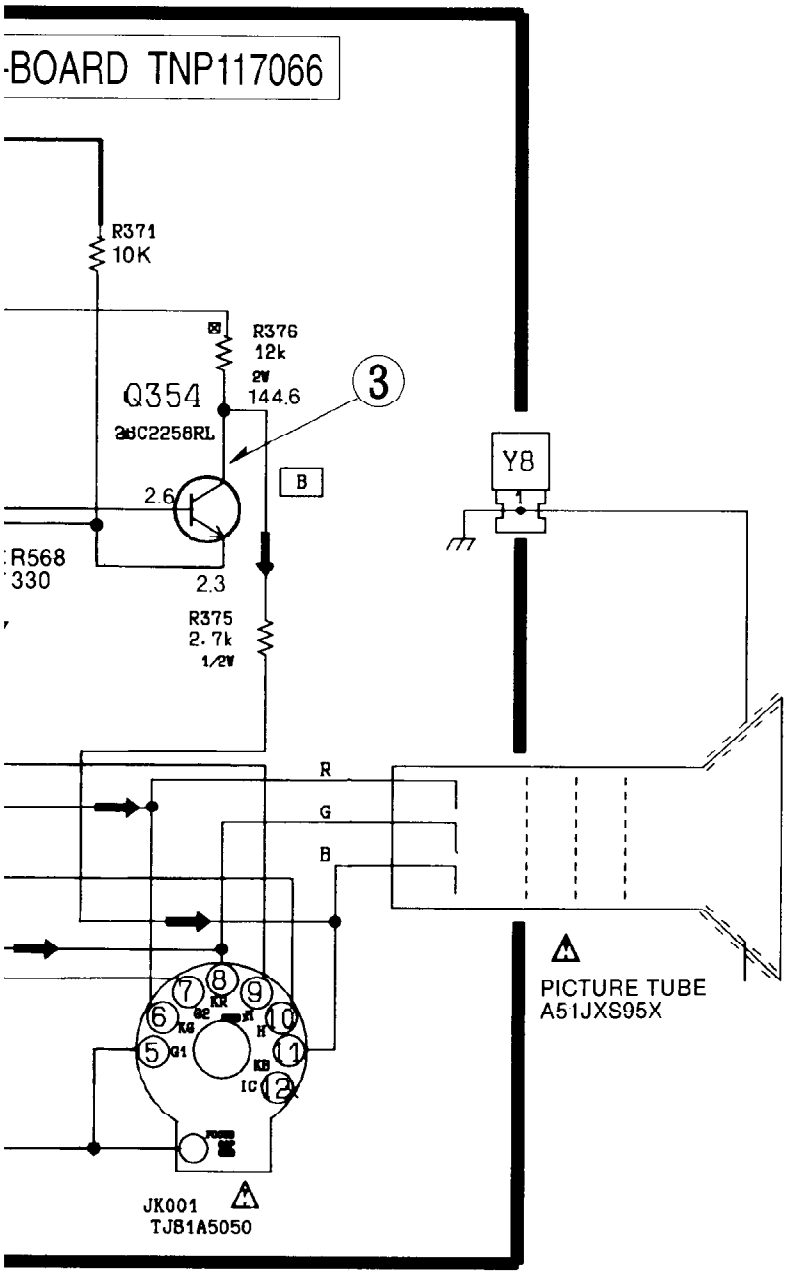
Key No.	Function	Key No.	Function	Key No.	Function
1	POWER ON / OFF	17	MUTE	33	TIMER REC
2	REWIND / REVIEW	18	STOP	34	PAUSE / STILL
3	1	19	3	35	TRACKING –
4	4	20	6	36	——
5	7	21	9	37	SLOW
6	CH SELECTION	22	2 DIGIT	38	TRACKING +
7	——	23	▲ UPPER KEY	39	——
8	MENU	24	——	40	——
9	RECALL	25	TV / AV	41	COUNTER CALL
10	PLAY	26	FORWARD / CUE	42	RECORD
11	2	27	~	43	INDEX ◀◀
12	5	28	!	44	DECISION
13	8	29	UP VOLUME	45	NORMAL
14	0	30	DOWN VOLUME	46	RESET
15	A LEFT KEY	31	——	47	INDEX ▶▶
16	▼ LOWER KEY	32	▶ RIGHT KEY		

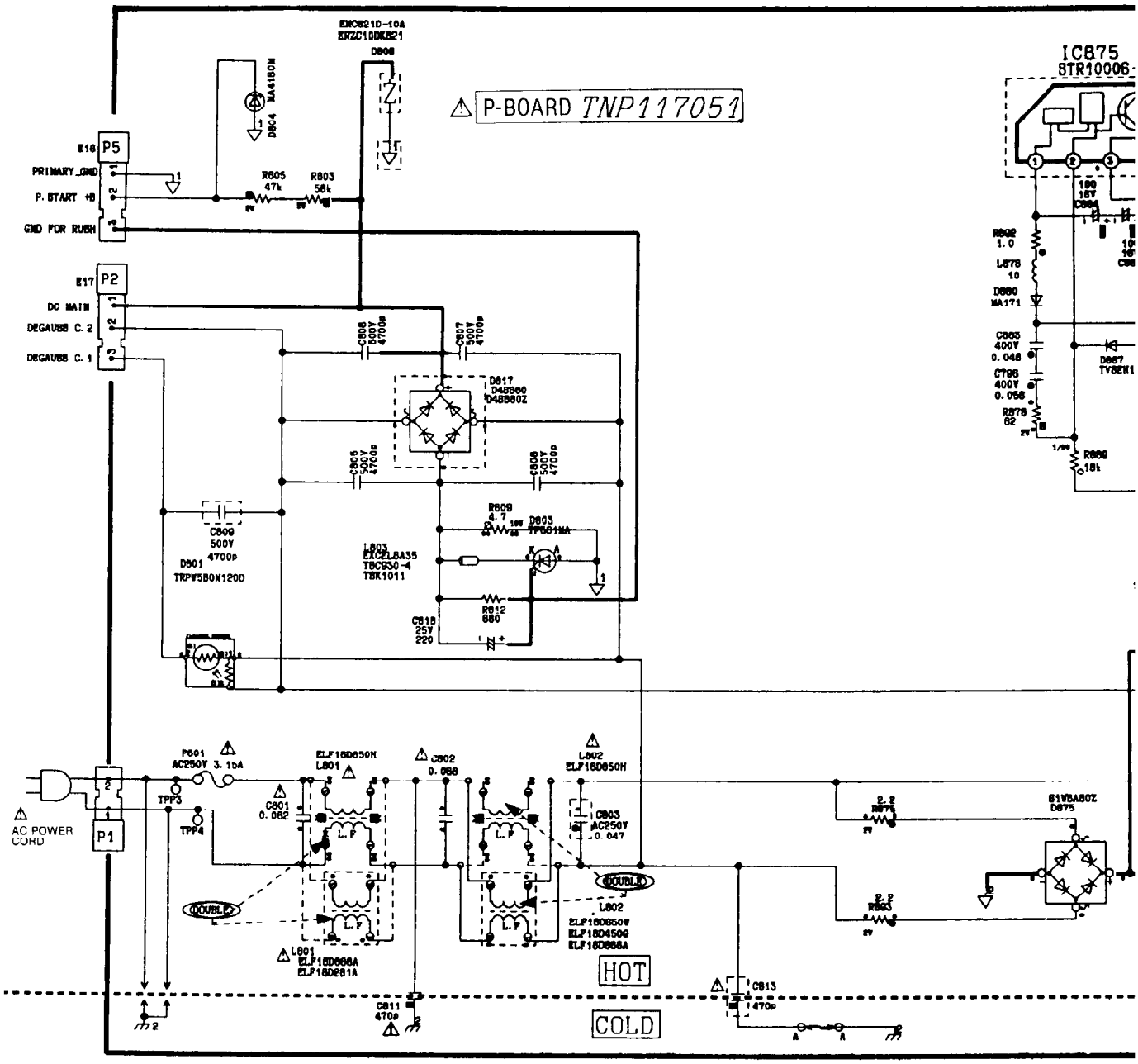
TV Section

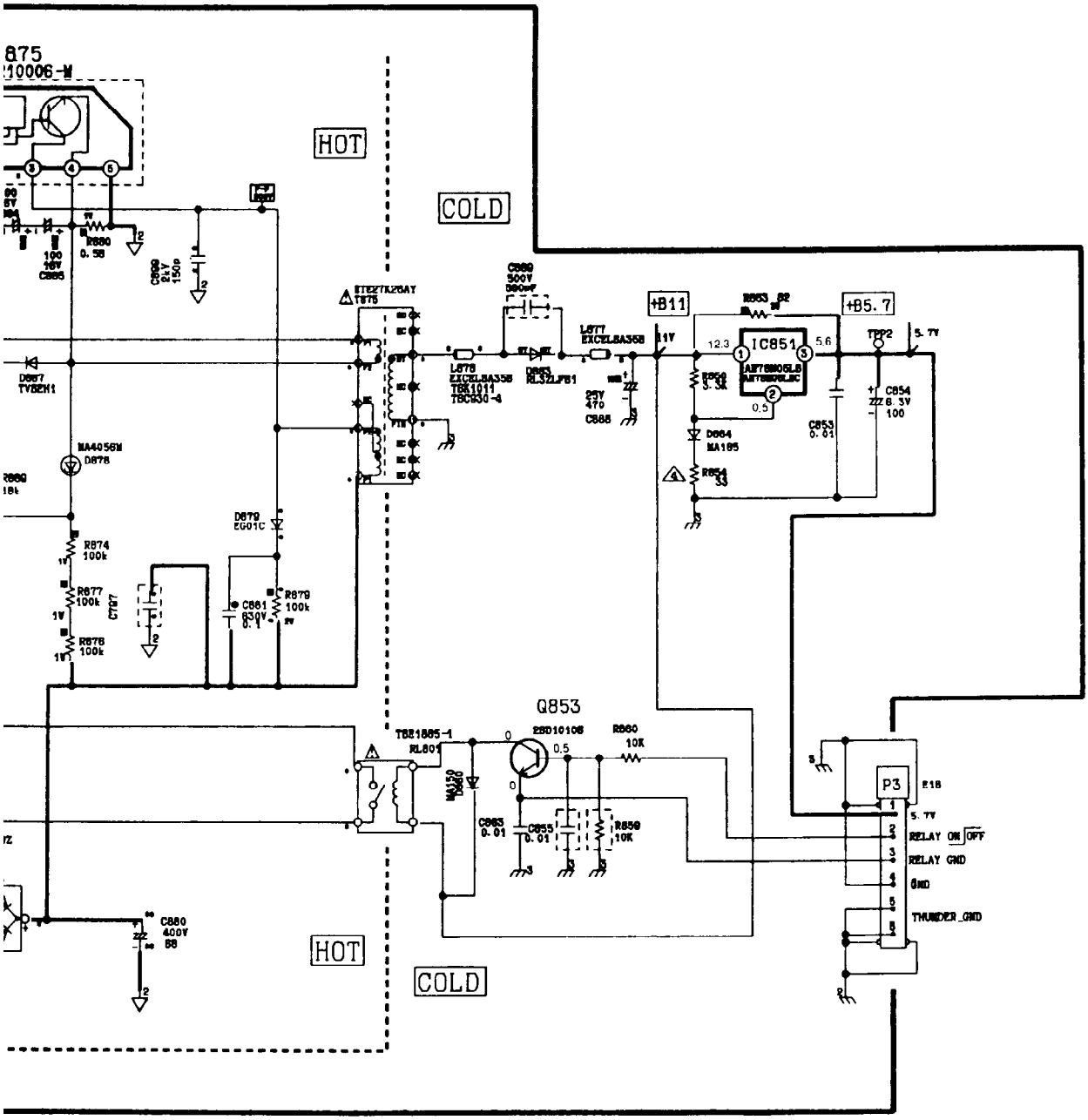

M-BOARD TNP117060
C1217
0.1
L1215
330
RM001
RPM-637CBRL
C1215
6.3V
100
ROUT
VCC GND ROUT
R1182
10k
1233
1k
C1218
330p
S1207
S1217
R1181
10k
REW
EVQQB405K
TV/AV/VCR
S1206
S1216
R1147
2.37k
TPM30
5V
R1138
2.37k
VOL UP
PLAY
S1205
S1215
R1146
2.37k
R1137
2.37k
R1131
68K
VOL DOWN
F.F.
S1204
S1214
R1145
3.16k
R1136
3.16k
Q1170
MSA1048A
4.7
R1141
10k
4.6
4.0
CH UP
STOP
S1203
R1144
4.87k
R1135
4.87k
Q1166
MSA1048A
-2.0
Q1168
MSA1048A
-1.7
CH DOWN
REC.
S1213
R1168
560
R1169
560
S1202
S1212
R1143
9.53k
R1134
9.53k
R1171
560
D1203
LN170WP38
STORE
(DISPLAY)
EJECT
D1204
LN170WP38
S1201
R1133
21.5k
FUNCTION
(PRESET)
S1201~S1207
S1212~S1217
: EVQQS605K ×13

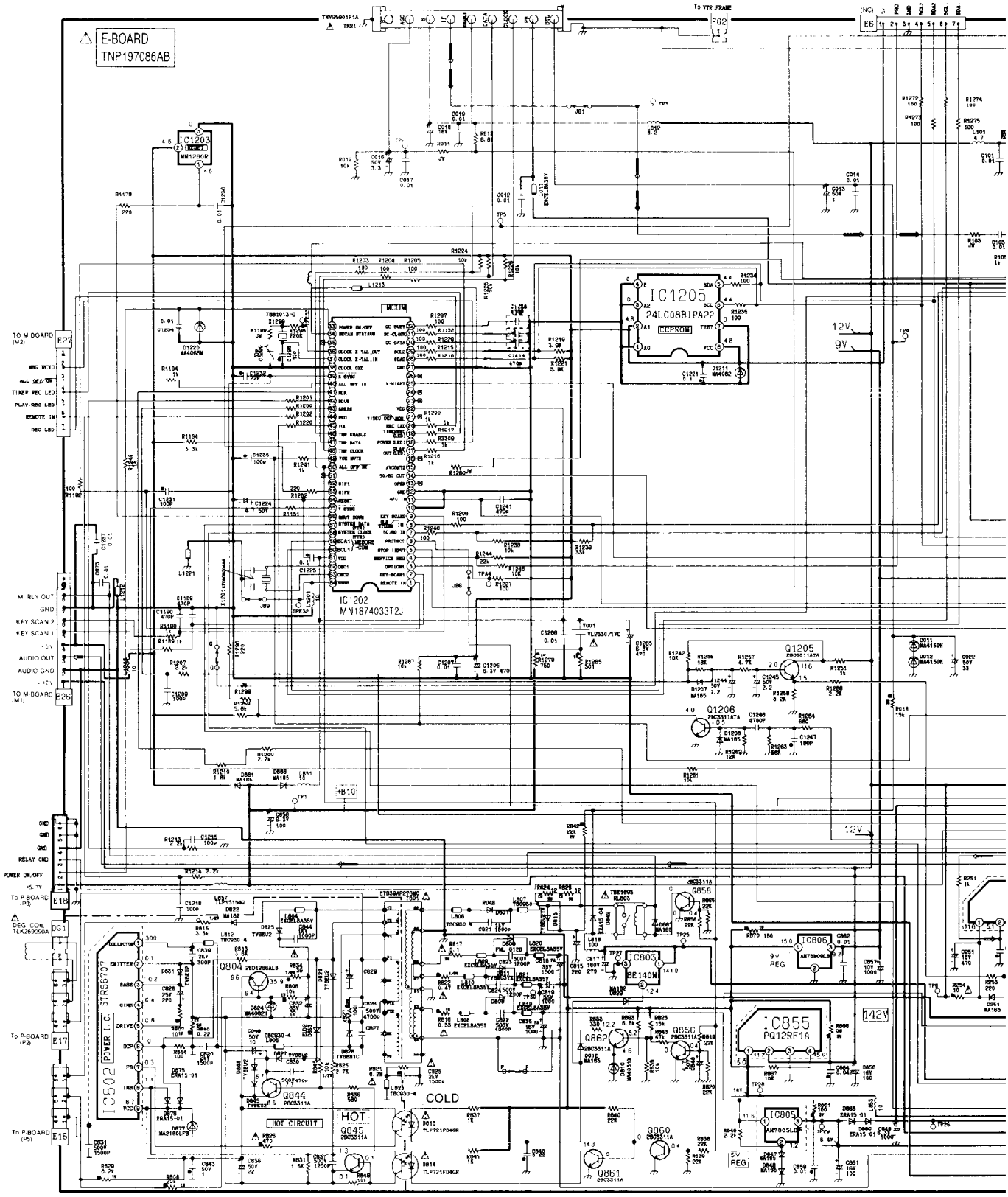

JK1201
TJS8E001
R3127
220
R3128
220
J81
J32
C1218
330p
TPM30
5V
C1181
0.01
Q1171
MSC2458A
R1163
22k
R1158
22k
R1160
33k
R1161
15k
MA165
D1175
MSA1048A
Q1167
D1206
LN41YCPHL
4.7
4.6
-2.2
R1170
10k
R1141
10k
4.0
R1172
10k
R1165
10k
12V
ON
R1184
680
R1177
10k
R1276
10k
ALL off
5-6
2-1
S1220
E8B64605
Q1168
MSA1048A
-1.7
R1171
560
R1167
560
Q1169
MSC2458A
0.5
LN170WP38
D1204
R1157
220
C1219
16V
470
M1
To
E-BOARD
(E26)
12V
PATCH_GND
AUDIO IN
5V
KEY SCAN1
KEY SCAN2
GND
M RLY OUT
SP
REC LED
REMOTE
PLAY LED
TIMER REC LED
ALL OFF ON
MSG RECEIVE
M2
To
E-BOARD
(E27)

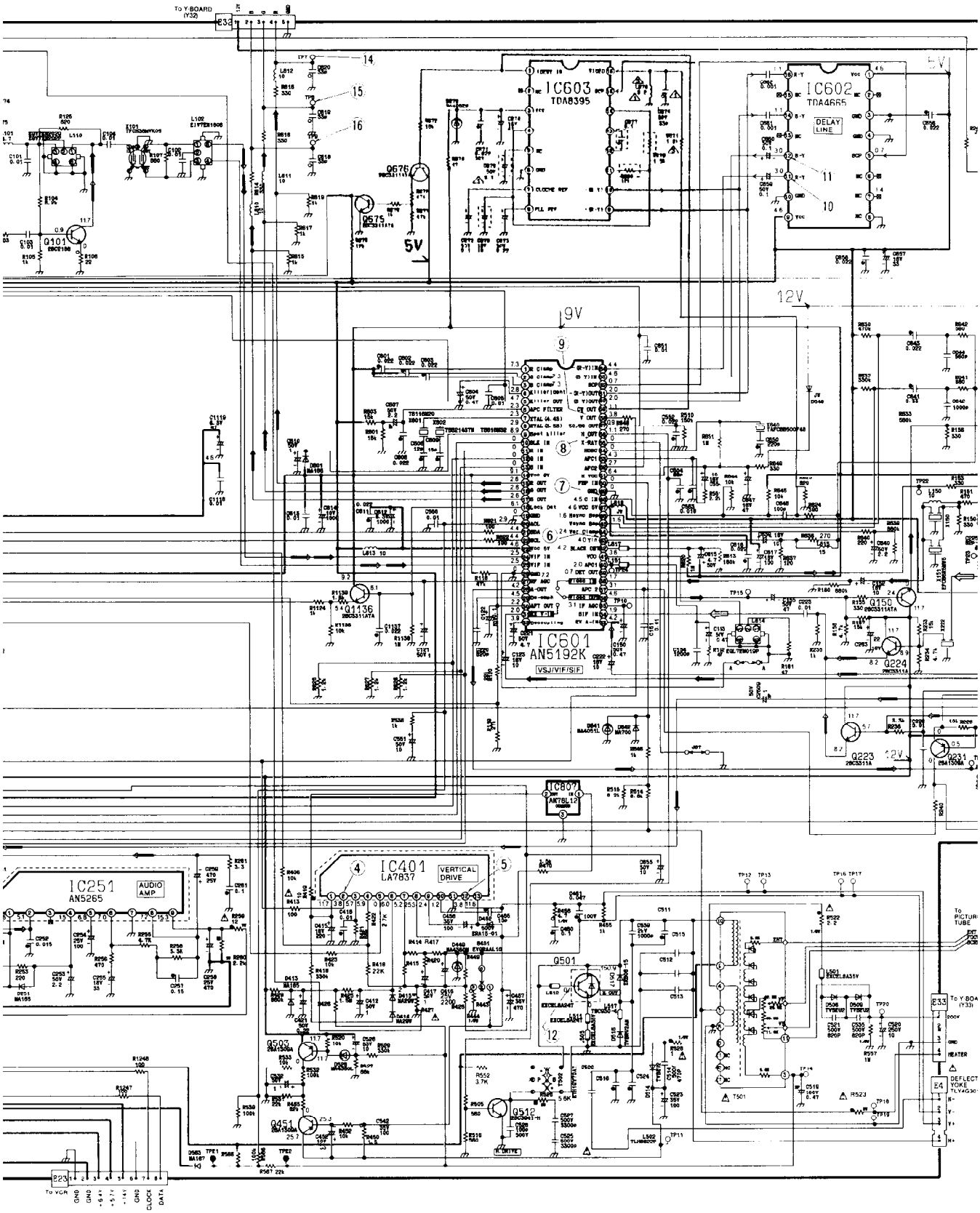

Y-BOARD
To
E-BOARD
(E32)
Y32
12V
B
G
R
SIGNAL_GND
To
E-BOARD
(E33)
Y33
200V
CRT_GND
HEATER
Q351
2SC2258RL
Q352
2SC2258RL
R369
10K
R373
100
R370
10K
R372
100
R351
12k
R352
12k
R374
100
C356
500V
0.01
C351
560p
R366
330
C352
560p
R367
300
C353
560p
R568
330
R386
2.7k
1/2W
R387
2.7K
1/2W
EXCEL8A35V
L361
C350
1500p
C354
2kV
820p
TPY1
TPY2
Y9

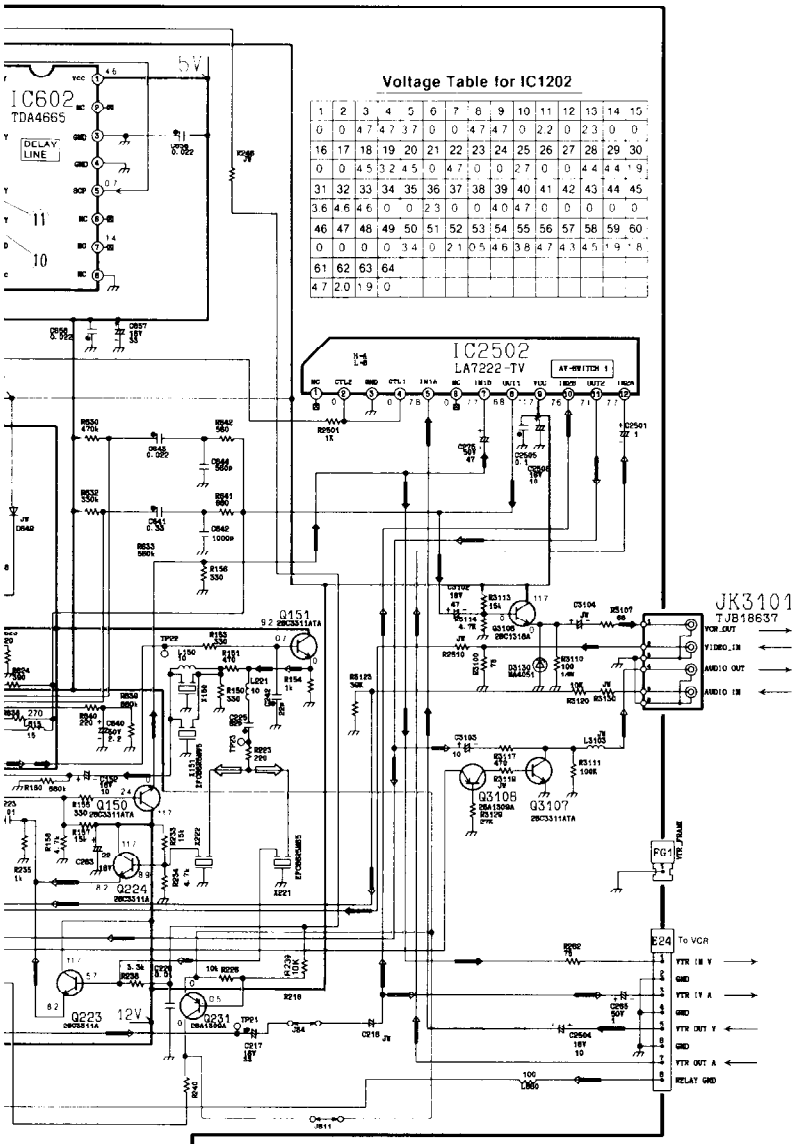

-BOARD TNP117066
R371
10K
R376
12k
2W
144.6
Q354
2SC2258RL
3
B
2.6
2.3
R568
330
R375
2.7k
1/2W
Y8
1
R
G
B
PICTURE TUBE
A51JXS95X
JK001
TJB1A5050


P-BOARD TNP117051
IC875
STR10006
P5
PRIMARY_GND
P. START +B
GND FOR RUSH
P2
DC MAIN
DEGAUSS C. 2
DEGAUSS C. 1
P1
AC POWER CORD
HOT
COLD
L. F
DOUBLE


HOT
COLD
+B11
+B5.7
IC851
Q853
P3
RELAY ON OFF
RELAY GND
GND
THUNDER_GND
HOT
COLD


E-BOARD
TNP197086AB
IC1205
24LC08B1PA22
EEPROM
MCUN
IC1202
MN1874033T2J
Q1205
Q1206
IC803
BE140N
IC855
P012RF1A
IC805
IC802
STR6707
POWER I.C.
Q804
Q844
Q845
Q862
Q850
Q860
Q861
HOT CIRCUIT
COLD
HOT
12V
9V
142V
5V
REG
+B10
TO M BOARD (M2)
TO M-BOARD (M1)
To P.BOARD (P3)
To P.BOARD (P2)
To P.BOARD (P5)
DEG. COIL

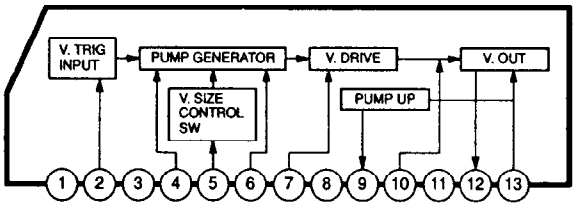

IC603
TDA8395
IC602
TDA4665
DELAY LINE
IC601
AN5192K
VSJ/VIF/SIF
IC401
LA7837
VERTICAL DRIVE
IC251
AN5265
AUDIO AMP
IC807
AN78L12
Q101
Q1136
Q675
Q676
Q501
Q512
Q503
Q451
Q150
Q224
Q223
Q231
5V
9V
12V
To Y-BOARD (Y32)
To PICTURE TUBE
To Y-BOARD (Y33)
DEFLECTION YOKE
To VCR
GND
GND
+8.4V
-5.1V
-14V
GND
CLOCK
DATA



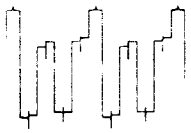
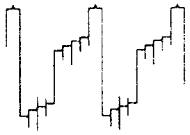
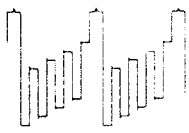
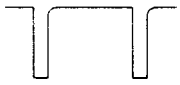
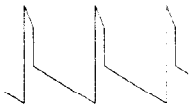
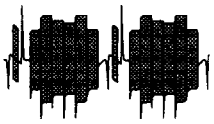
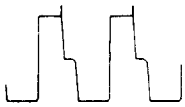
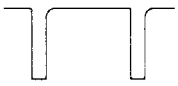
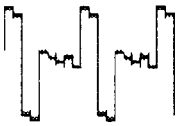
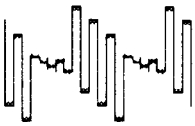
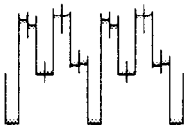
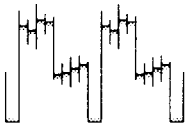
Voltage Table for IC1202

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0	0	4.7	4.7	3.7	0	0	4.7	4.7	0	2.2	0	2.3	0	0
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
0	0	4.5	3.2	4.5	0	4.7	0	0	2.7	0	0	4.4	4.4	1.9
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
3.6	4.6	4.6	0	0	2.3	0	0	4.0	4.7	0	0	0	0	0
46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
0	0	0	0	3.4	0	2.1	0.5	4.6	3.8	4.7	4.3	4.5	1.9	1.8
61	62	63	64											
4.7	2.0	1.9	0											

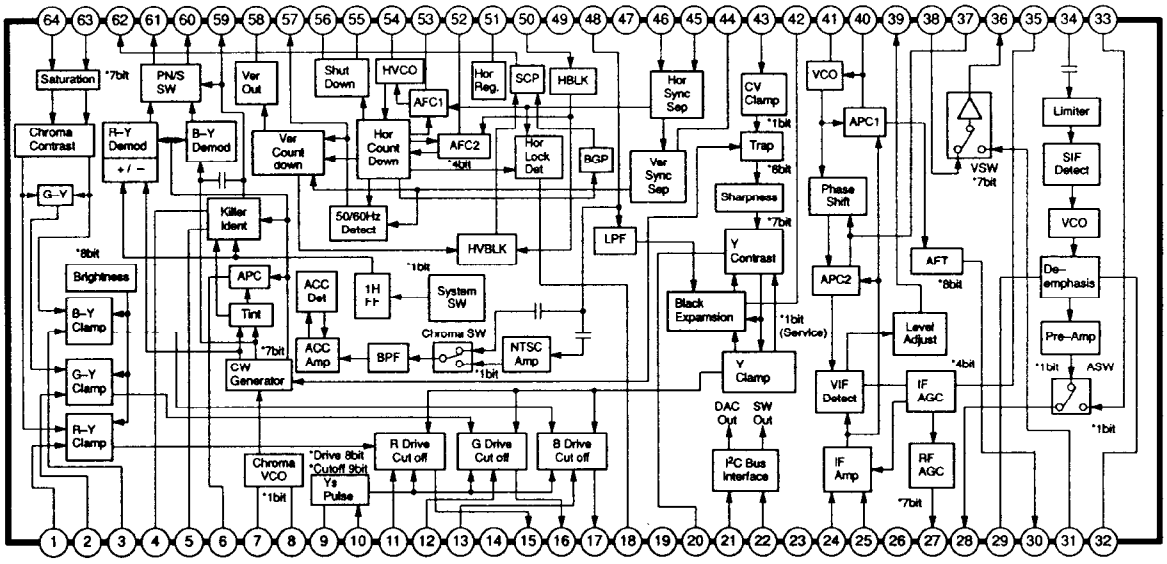
IC451 (VERTICAL DRIVE : LA7837)



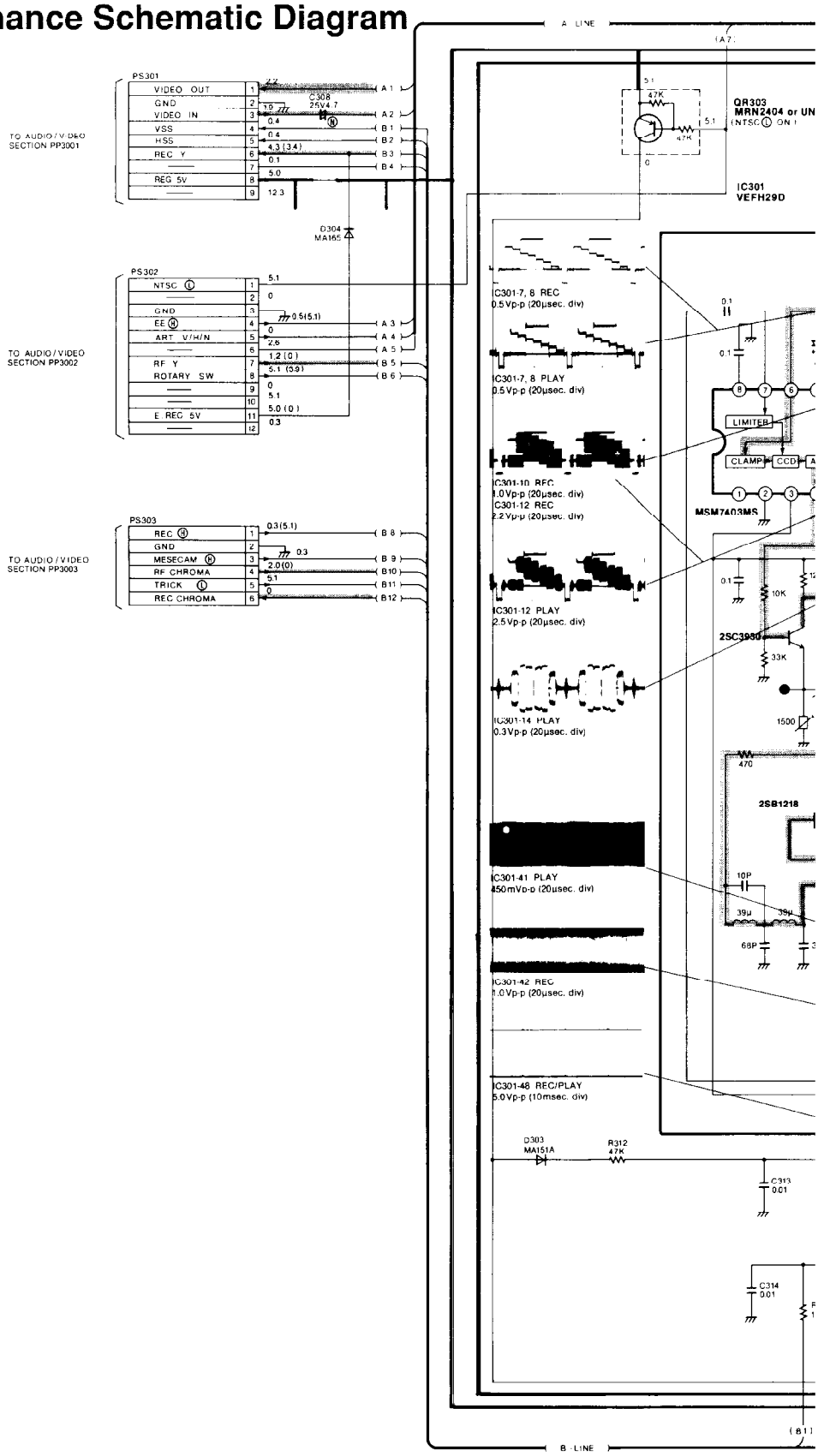
WAVEFORM PATTERN TABLE

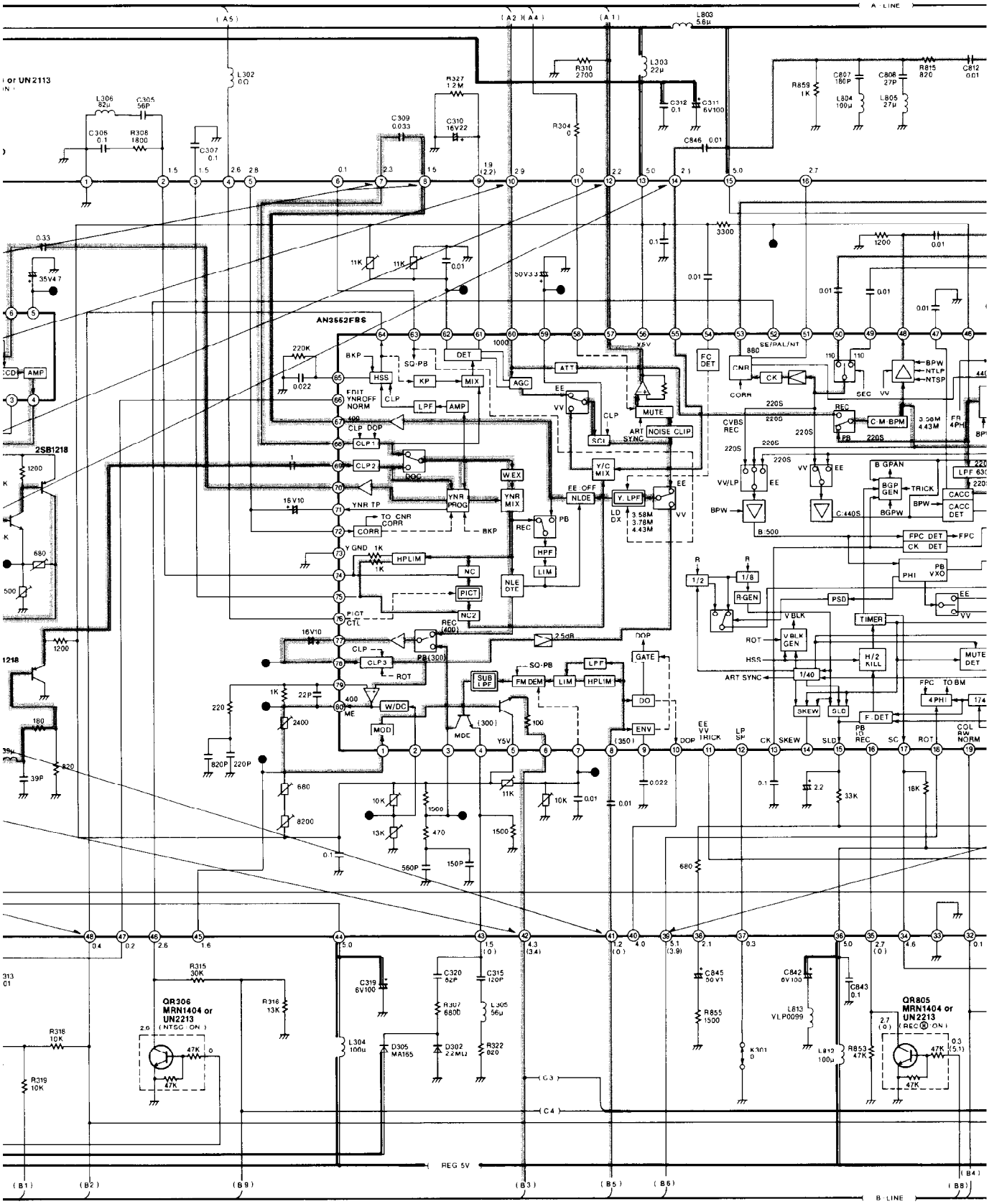
① Q351-C  84.4Vp-p(20μsec)	② Q352-C  90.6Vp-p(20μsec)	③ Q354-C  81.9Vp-p(20μsec)
④ IC401-2  4.4Vp-p(5msec)	⑤ IC401-12  51.9Vp-p(5msec)	⑥ IC601-43 1.5Vp-p(20μsec)
⑦ IC601-48  0.9Vp-p(20μsec)	⑧ IC601-56  3.7Vp-p(20μsec)	⑨ IC601-58  4.7Vp-p(5msec)
⑩ IC602-11  1.2Vp-p(20μsec)	⑪ IC602-12  1.7Vp-p(20μsec)	⑫ Q501-B 15.2Vp-p(20μsec)
⑬ TP9 3.3Vp-p(20μsec)	⑭ TP7  3.6Vp-p(5msec)	⑮ TP8  3.8Vp-p(20μsec)

IC601 (VJC / VIF / SIF : AN5192K)

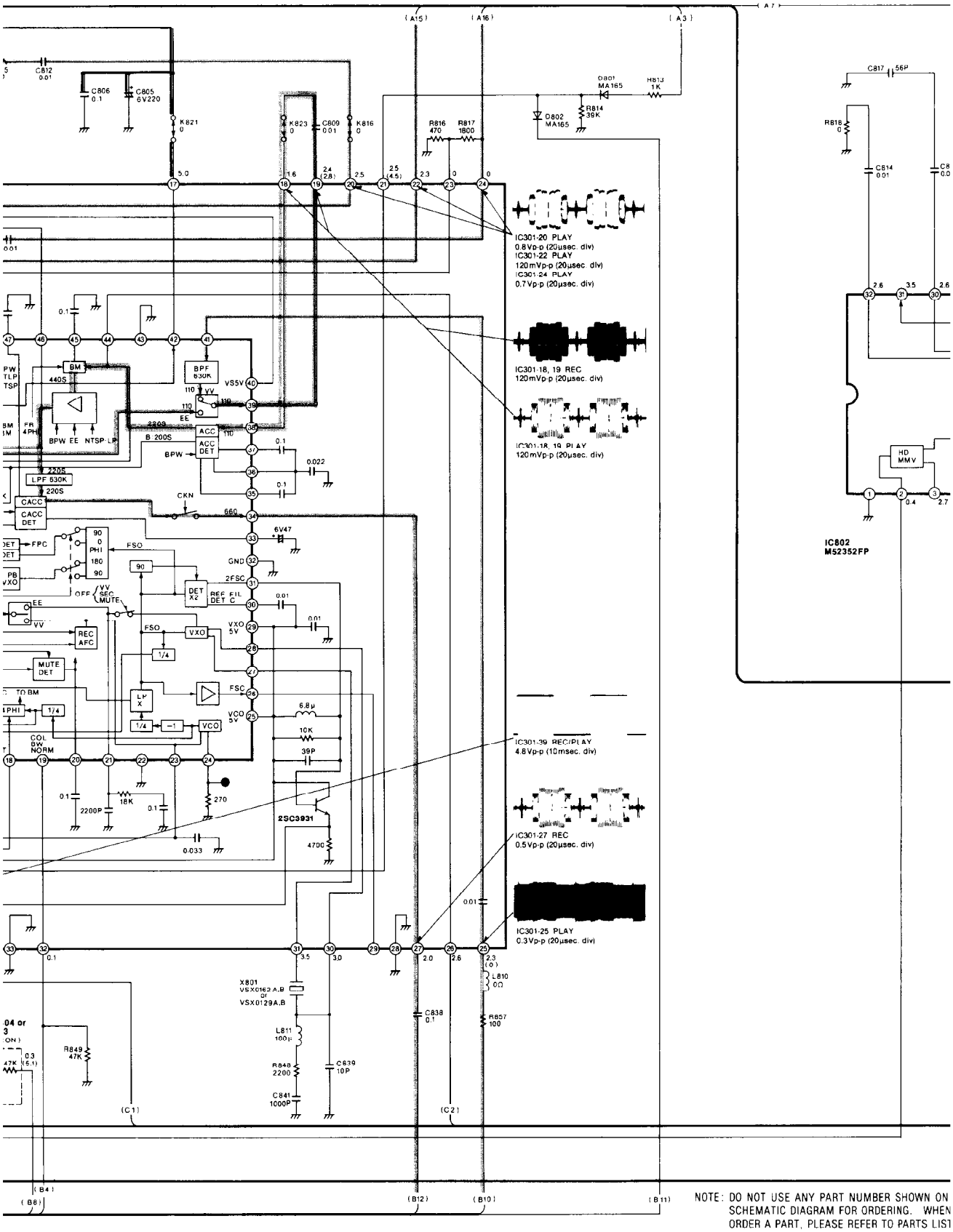


VCR Section
Luminance & Chrominance Schematic Diagram



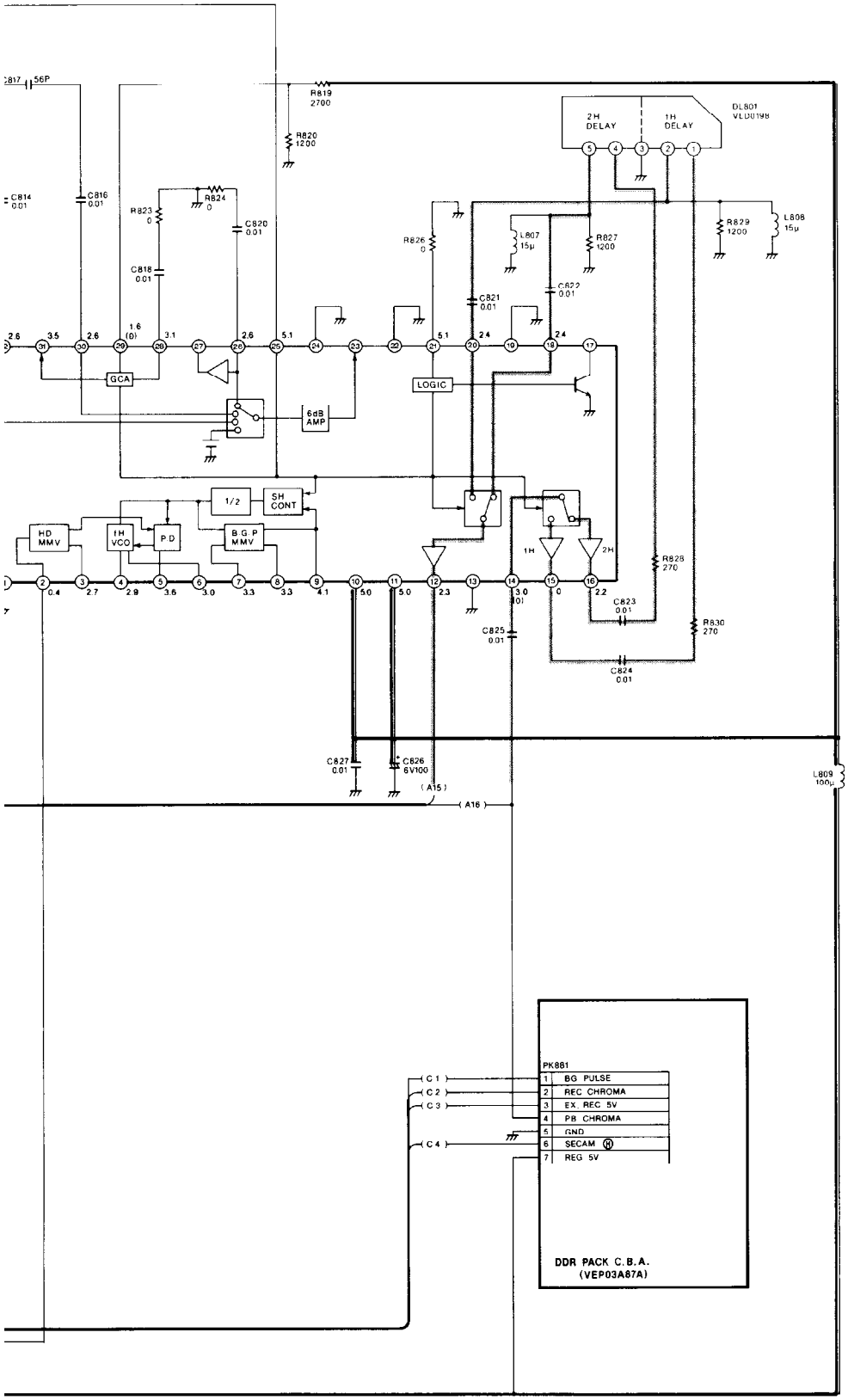

AN3562FBS
2SB1218
QR306
MRN1404 or
UN2213
(NTSC ON)
QR805
MRN1404 or
UN2213
(REC ON)
A LINE
B LINE
REG 5V
DET
AGC
ATT
MIX
KP
LPF
AMP
HSS
SQ-PB
BKP
CLP
DOP
MUTE
NOISE CLIP
SCI
Y/C MIX
W.EX
YNR MIX
YNR PROG
NLDE
V. LPF
EE-OFF
HPF
LIM
NLE DTE
PICT
NC2
REC
PB
HPLIM
CORR
TO CNR CORR
W/DC
MOD
MDC
SUB LPF
FM DEM
HPLIM
GATE
DO
ENV
FC DET
CNR
CK
SE/PAL/NT
CVBS REC
C.M.BPM
BPW
NTLP
NTSP
B-500
C-440S
B GPAN
BGP GEN
TRICK
CACC
CACC DET
BGPW
FPC DET
CK DET
FPC
PHI
PB VXO
PSD
R-GEN
TIMER
V.BLK
V.BLK GEN
H/2 KILL
1/40
MUTE DET
SKEW
GLD
F. DET
4PHI
TO BM
ART SYNC
HSS
ROT
SLD
SC
COL AW NORM
PB ID REC
EE VV TRICK
LP SP
CK SKEW
DOP
L803 5.6µ
L302 0.0
L303 22µ
L306 82µ
L805 27µ
L804 100µ
L813 VLP0099
L810 100µ
L304 100µ
L305 56µ
D305 MA165
D302 2.2MΩ
K301
R310 2700
R327 1.2M
R304 0
R859 1K
R853 47K
R855 1500
R315 30K
R316 13K
R318 10K
R319 10K
R322 820
C309 0.033
C310 16V22
C311 6V100
C312 0.1
C846 0.01
C842 6V100
C843 0.1
C845 50V1
C319 6V100
C320 82P
C315 120P
C307 0.1
C305 56P
C306 0.1
C808 27P
C807 180P
C812 0.01
R815 820
R308 1800
R307 6800
3.58M
3.78M
4.43M
4.4MHz

MAIN SIGNAL PATH IN REC MODE



NOTE: DO NOT USE ANY PART NUMBER SHOWN ON SCHEMATIC DIAGRAM FOR ORDERING. WHEN ORDER A PART, PLEASE REFER TO PARTS LIST

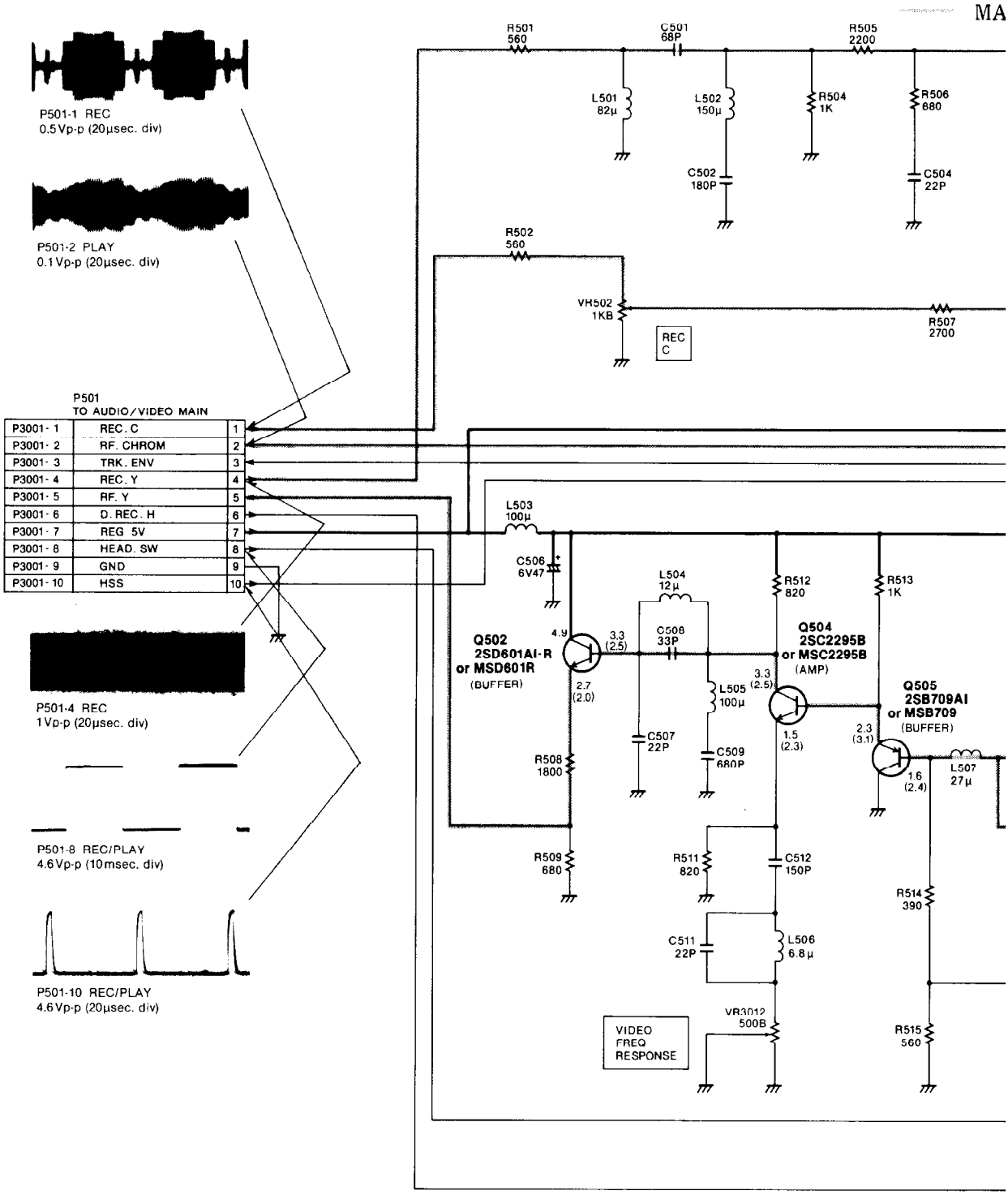
MAIN SIGNAL PATH IN PLAYBACK MODE



MBER SHOWN ON THIS
RDERING. WHEN YOU
ER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

Head Amp Schematic Diagram

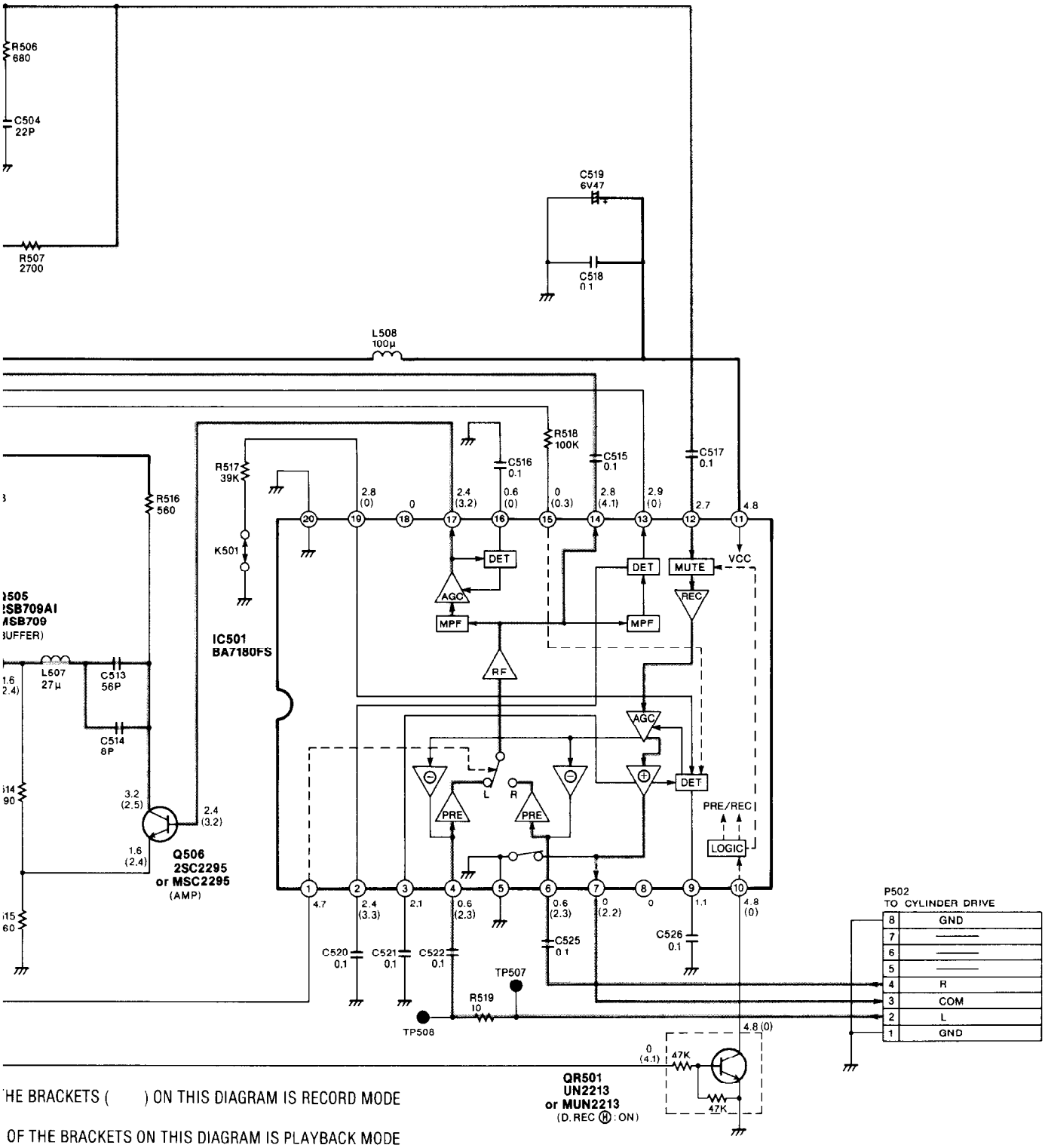


NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRAC WITH PAL COLOUR SIGNAL.

MAIN SIGNAL PATH IN REC MODE

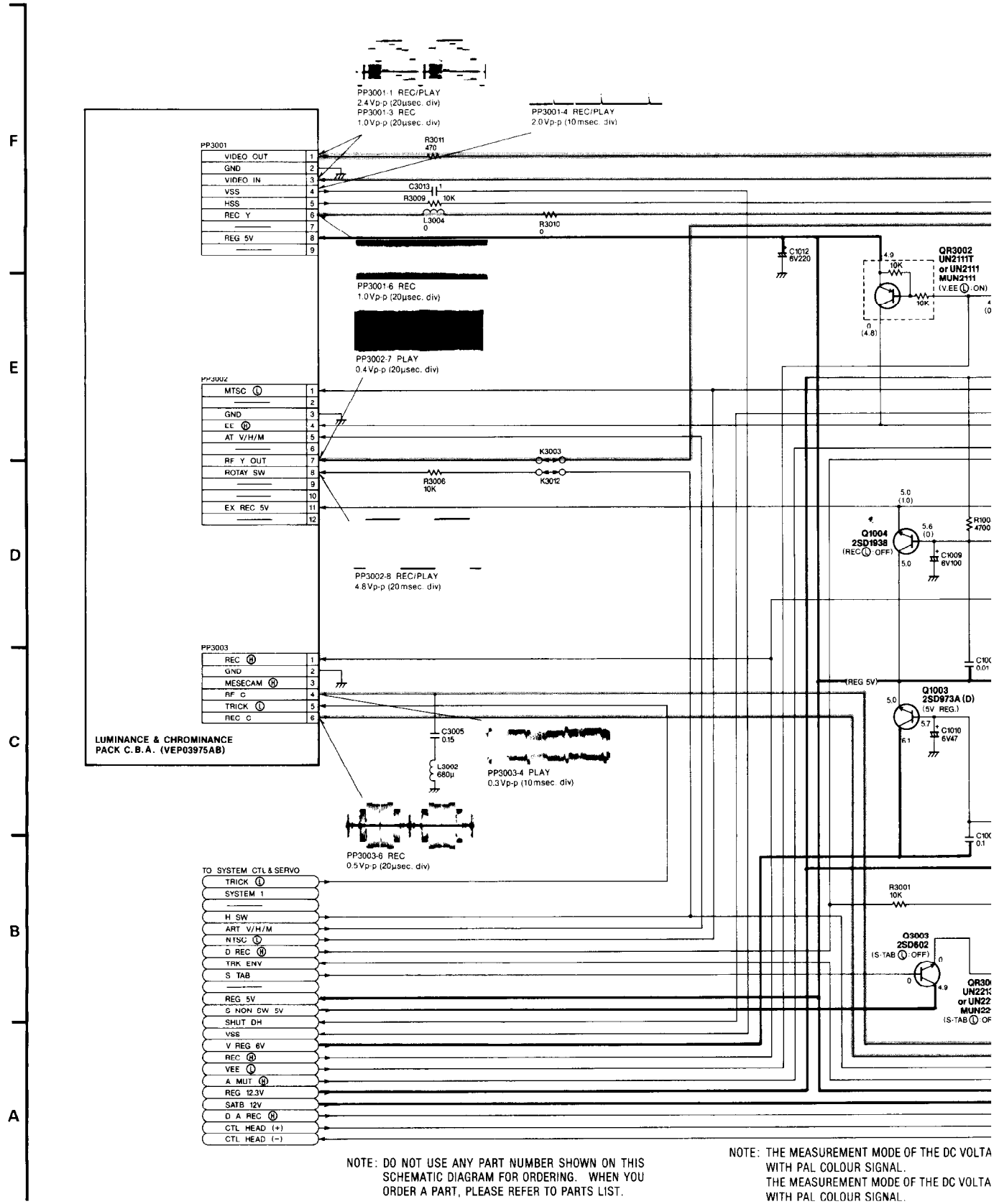
MAIN SIGNAL PATH IN PLAYBACK MODE



THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE

OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE

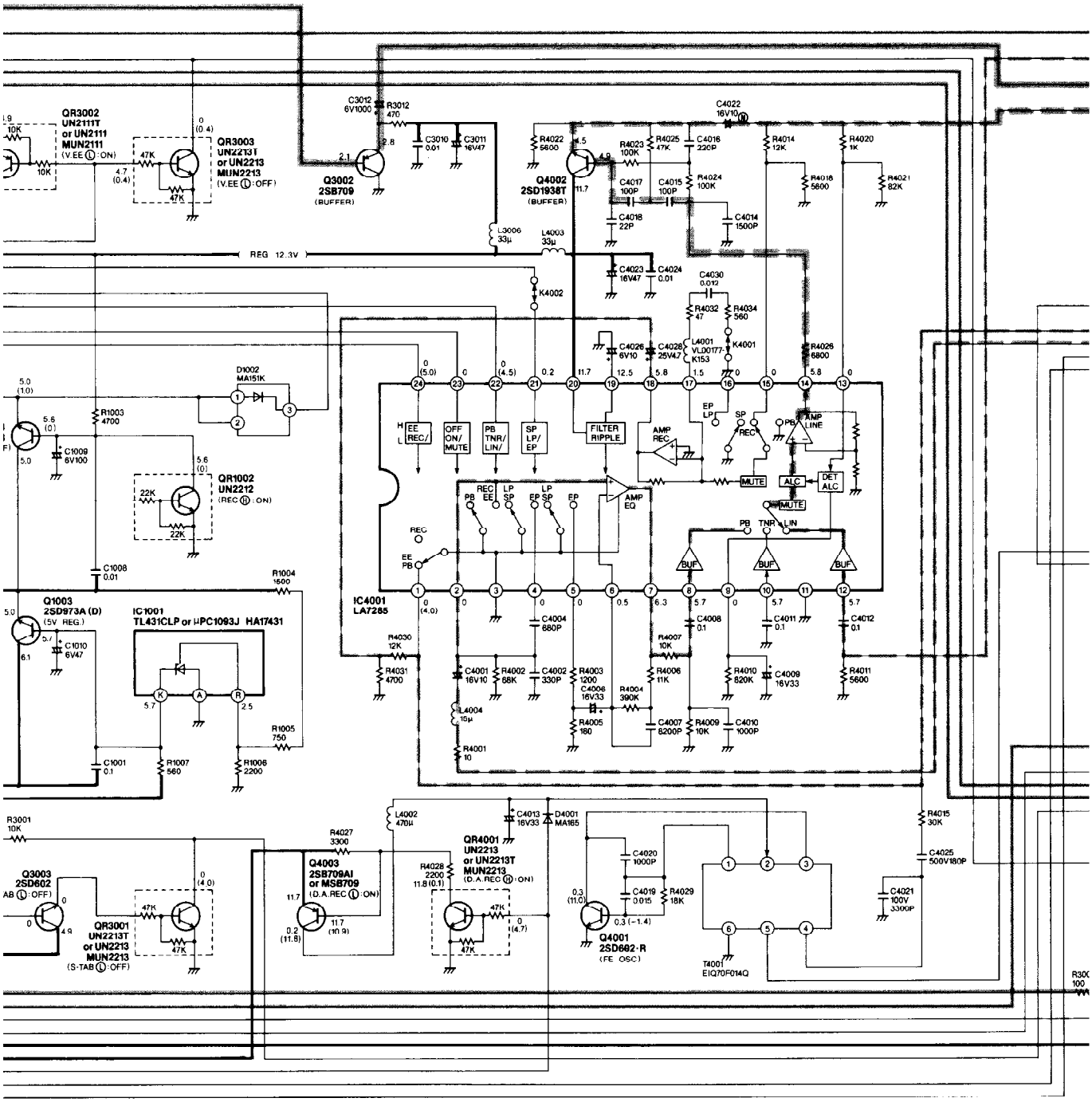
Audio & Video Schematic Diagram



NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

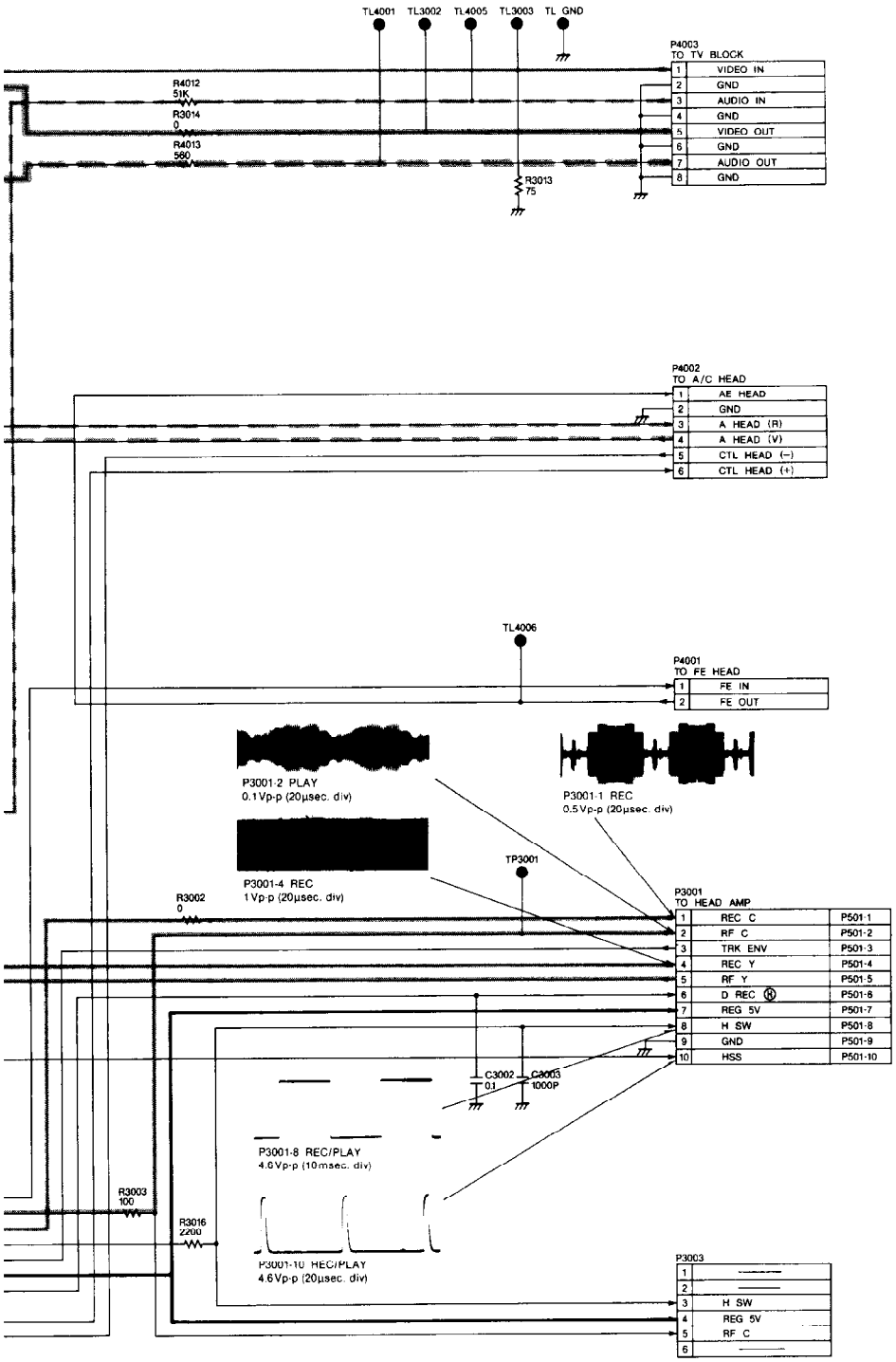
NOTE: THE MEASUREMENT MODE OF THE DC VOLTA
WITH PAL COLOUR SIGNAL.
THE MEASUREMENT MODE OF THE DC VOLTA
WITH PAL COLOUR SIGNAL.

VIDEO MAIN SIGNAL PATH IN REC MODE — AUI
VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE — AUI

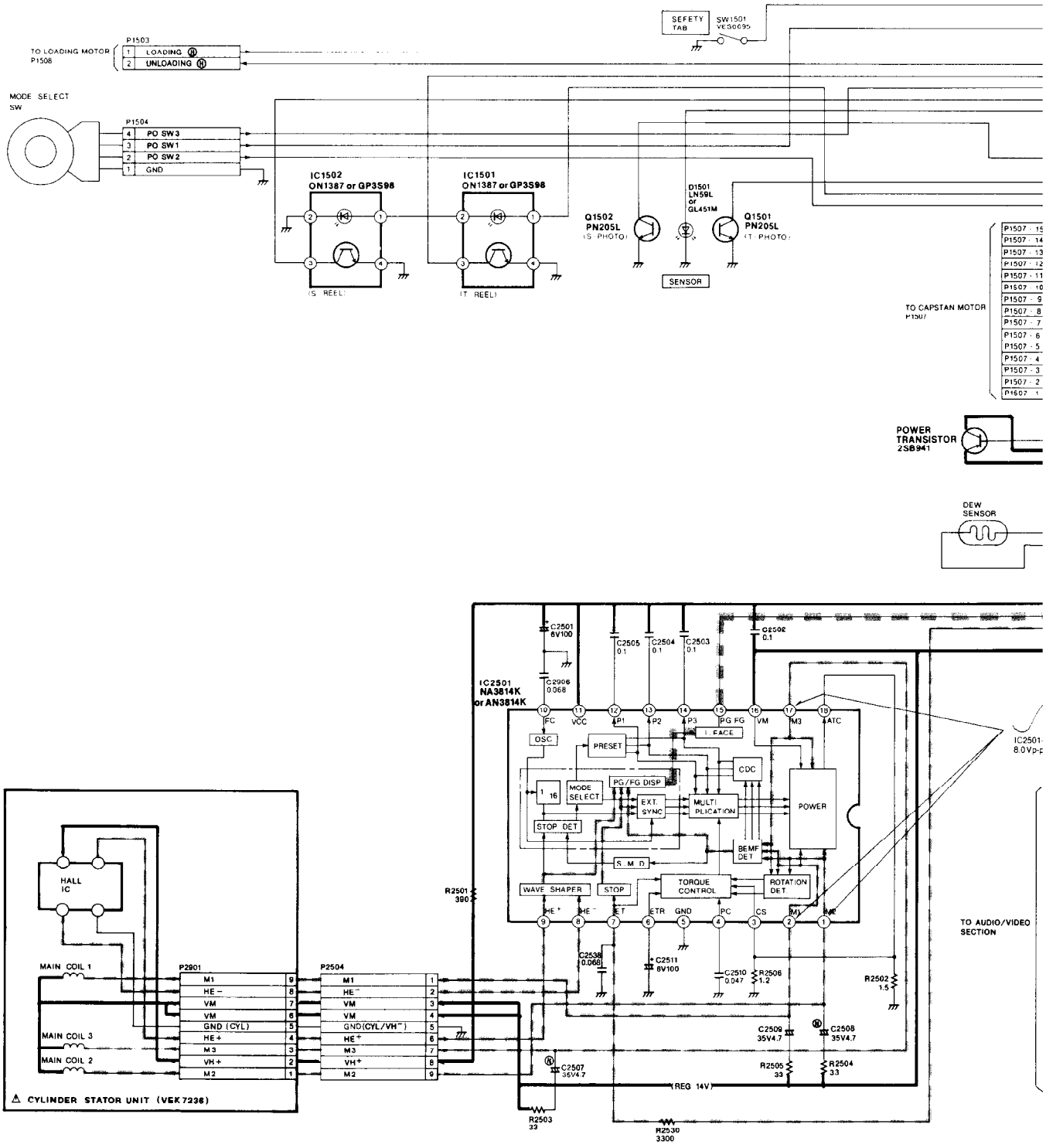


IDE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE
IAL.
IDE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE
IAL.

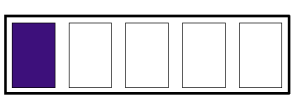
AUDIO MAIN SIGNAL PATH IN REC MODE
AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

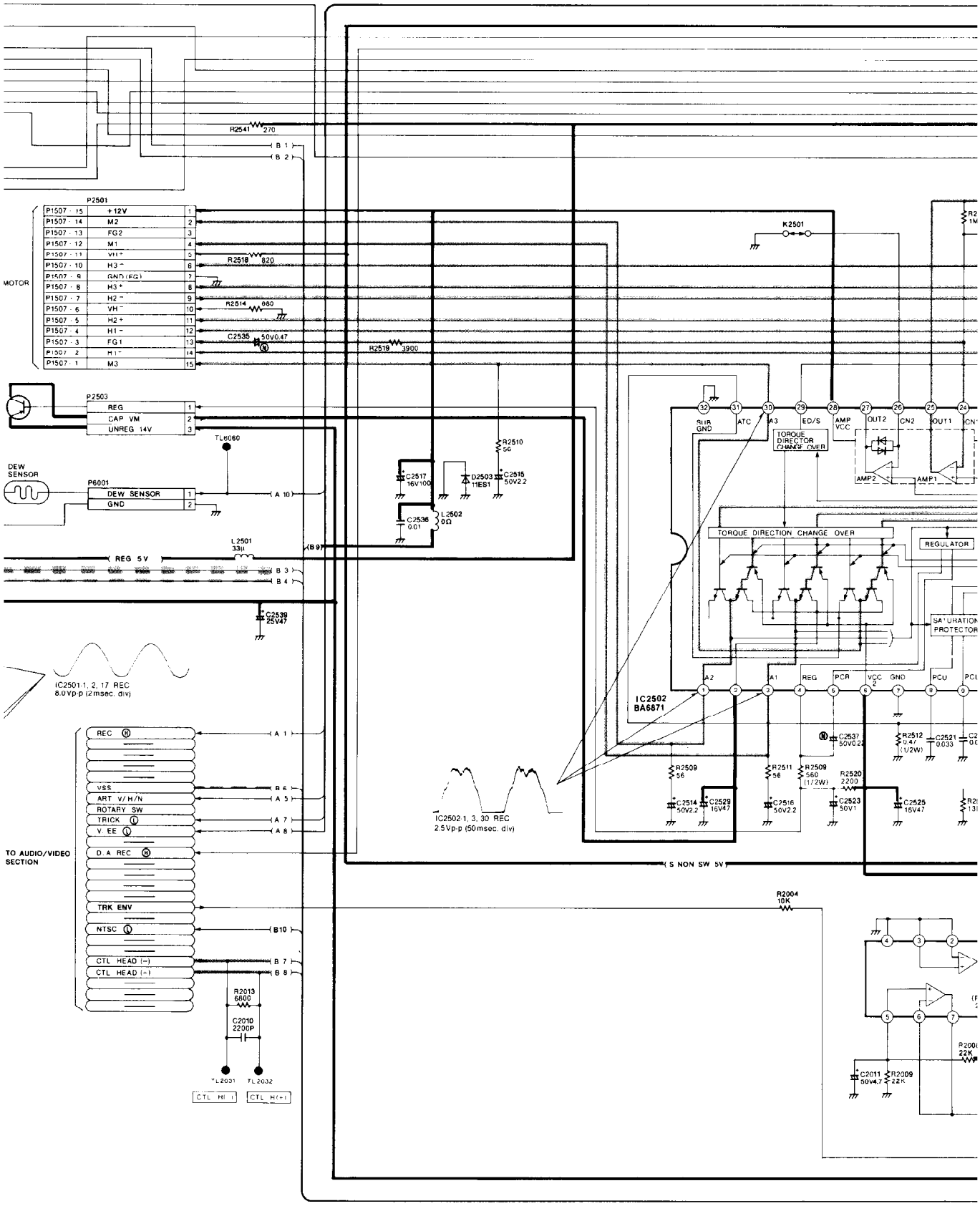


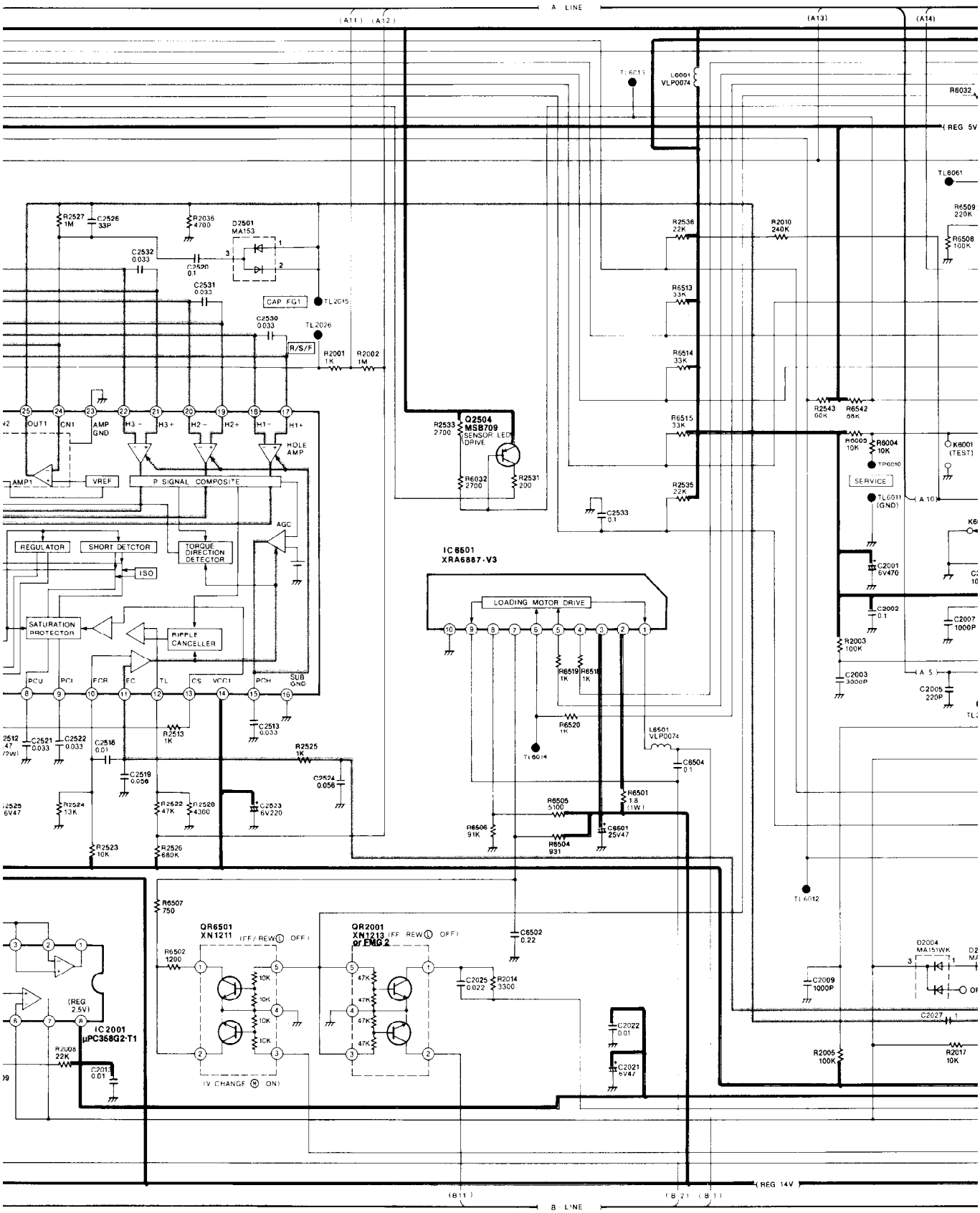
System Control & Servo Schematic Diagram

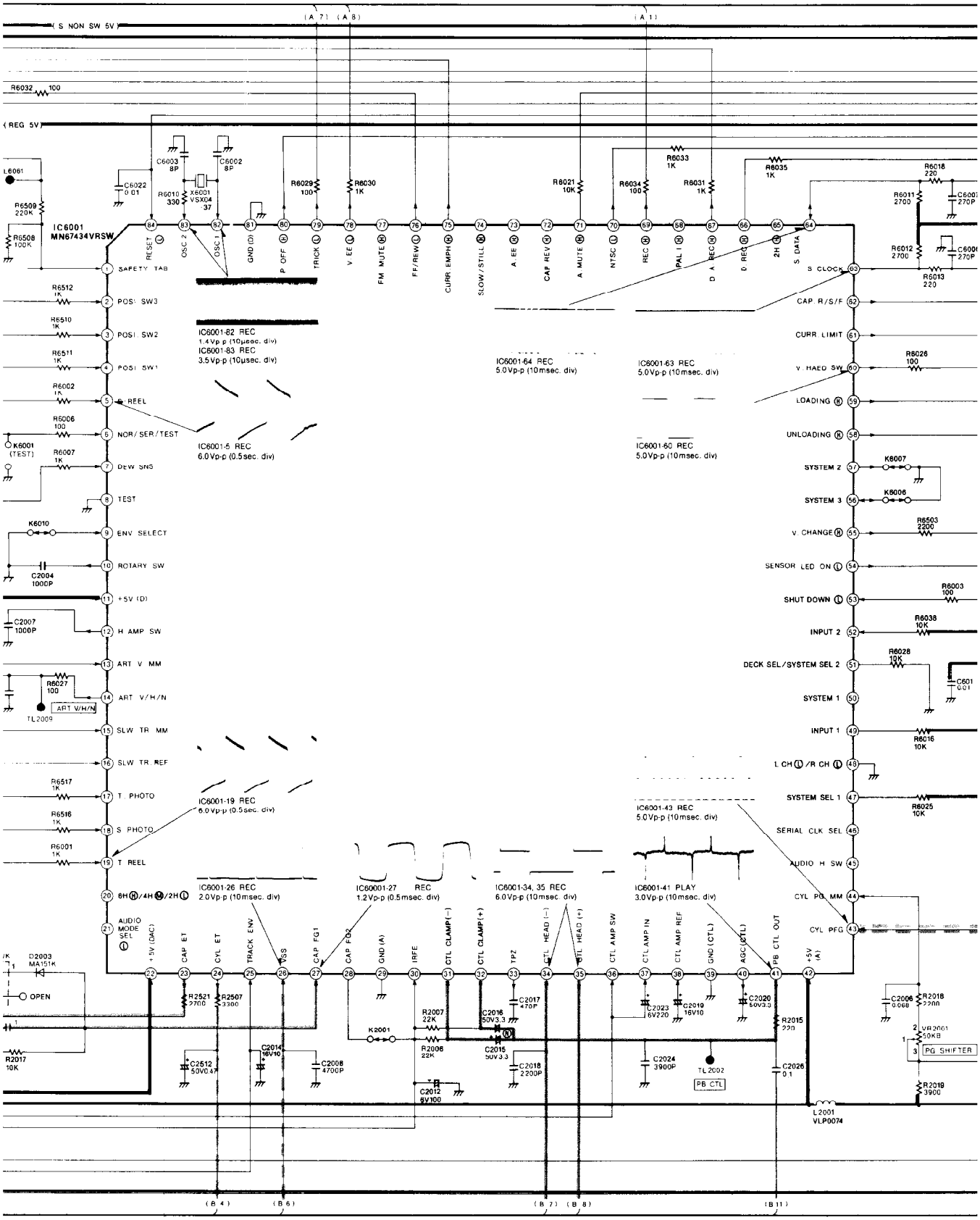


IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

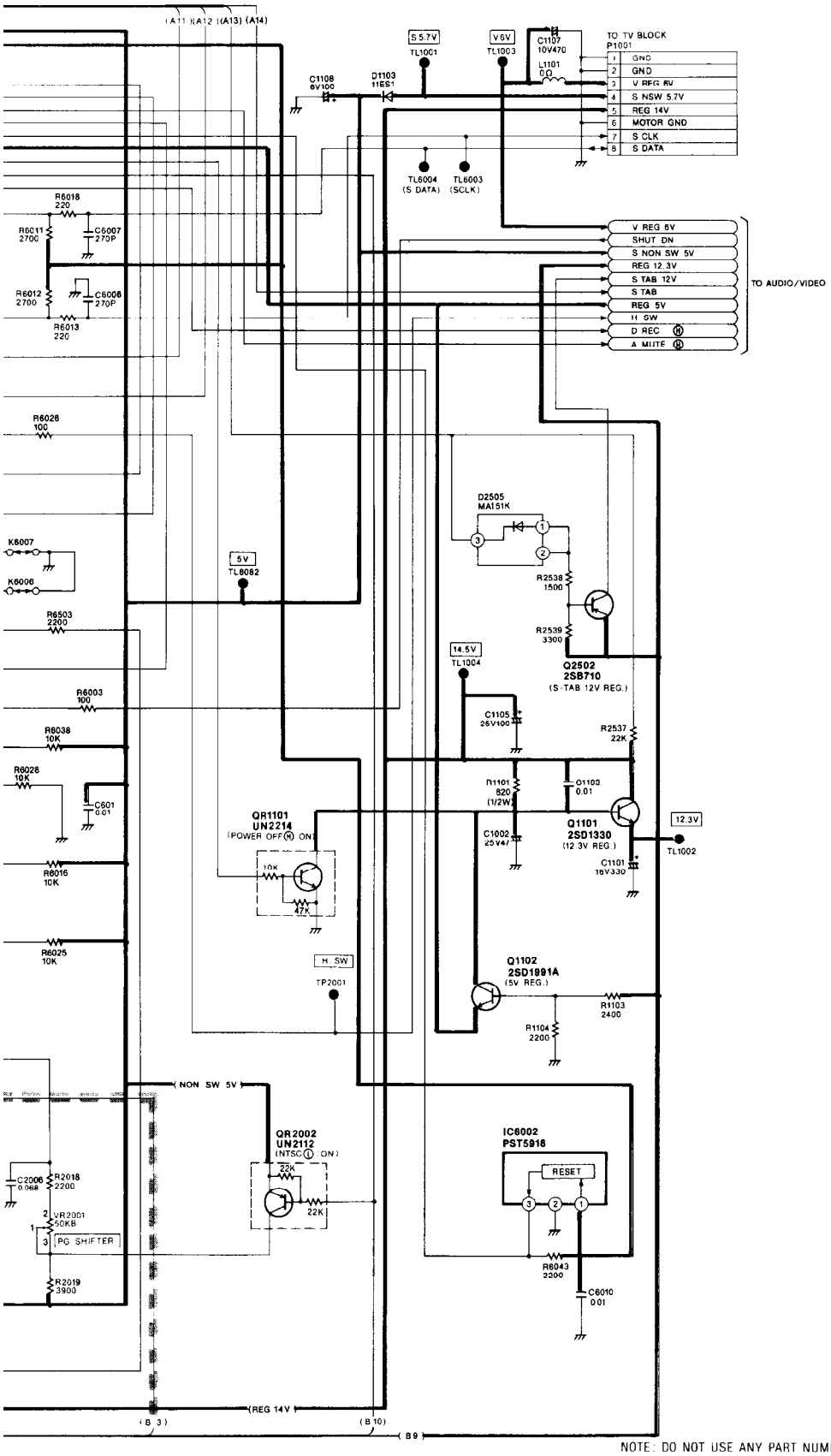



P2501
P1507 - 15 +12V 1
P1507 - 14 M2 2
P1507 - 13 FG2 3
P1507 - 12 M1 4
P1507 - 11 VH+ 5
P1507 - 10 H3 - 6
P1507 - 9 GND (FG) 7
P1507 - 8 H3 + 8
P1507 - 7 H2 - 9
P1507 - 6 VH - 10
P1507 - 5 H2 + 11
P1507 - 4 H1 - 12
P1507 - 3 FG1 13
P1507 - 2 H1 + 14
P1507 - 1 M3 15
MOTOR
R2541 270
R2518 820
R2514 680
C2535 50V0.47
R2519 3900
P2503
REG 1
CAP VM 2
UNREG 14V 3
TL6060
DEW SENSOR
P6001
DEW SENSOR 1
GND 2
A 10
L2501 33u
REG 5V
(B 9)
B 3
B 4
C2539 25V47
C2517 16V100
D2503 11ES1
C2515 50V2.2
R2510 56
C2536 0.01
L2502 0Ω
K2501
IC2501 1, 2, 17 REC 8.0Vp-p (2msec. div)
REC
VSS
ART V/H/N
ROTARY SW
TRICK
V. EE
D. A REC
TRK ENV
NTSC
CTL HEAD (-)
CTL HEAD (+)
A 1
B 6
A 5
A 7
A 8
B10
B 7
B 8
TO AUDIO/VIDEO SECTION
R2013 6800
C2010 2200P
TL2031
TL2032
CTL HEAD (-)
CTL HEAD (+)
IC2502 1, 3, 30 REC 2.5Vp-p (50msec. div)
IC2502
BA6871
RIP GND
ATC
A3
ED/S
AMP VCC
OUT2
CN2
OUT1
AMP2
AMP1
TORQUE DIRECTOR CHANGE OVER
TORQUE DIRECTION CHANGE OVER
REGULATOR
SATURATION PROTECTOR
A2
A1
REG
PCR
VCC
GND
PCU
R2509 56
R2511 56
R2509 560 (1/2W)
R2520 2200
R2512 0.47 (1/2W)
C2521 0.033
C2514 50V2.2
C2529 16V47
C2516 50V2.2
C2523 50V1
C2525 16V47
C2537 50V0.22
S NON SW 5V
R2004 10K
R2009 22K
C2011 50V4.7


A LINE
(A11) (A12)
(A13)
(A14)
TL6013
L6001 VLP0074
R6032
REG 5V
TL6061
R6509 220K
R6508 100K
R2527 1M
C2526 33P
R2036 4700
D2501 MA153
C2532 0.033
C2520 0.1
C2531 0.033
CAP FG1
TL2015
C2530 0.033
TL2026
R/S/F
R2001 1K
R2002 1M
R2536 22K
R2010 240K
R6513 33K
R6514 33K
R6515 33K
R2535 22K
R2543 68K
R6542 68K
R6000 10K
R6004 10K
TP6010
K6001 (TEST)
SERVICE
TL6011 (GND)
A 10
Q2504 MSB709 SENSOR LED DRIVE
R2533 2700
R6032 2700
R2531 200
C2533 0.1
IC 6501 XRA6887-V3
LOADING MOTOR DRIVE
AMP1
VREF
P SIGNAL COMPOSITE
HOLE AMP
AMP GND
AGC
REGULATOR
SHORT DETCTOR
TORQUE DIRECTION DETECTOR
ISO
SATURATION PROTECTOR
RIPPLE CANCELLER
R6519 1K
R6518 1K
R6520 1K
TL6014
L6501 VLP0074
C6504 0.1
R6505 5100
R6506 91K
R6504 931
R6501 1.8 (1W)
C6501 25V47
C2513 0.033
R2513 1K
R2525 1K
C2524 0.056
C2521 0.033
C2522 0.033
C2518 0.01
C2519 0.056
R2524 13K
R2522 47K
R2526 4300
C2523 6V220
R2523 10K
R2526 680K
C2002 0.1
C2007 1000P
R2003 100K
C2003 3300P
C2005 220P
A 5
R6507 750
QR6501 XN1211 (FF/REW L OFF)
QR2001 XN1213 (FF REW L OFF) or EMG2
R6502 1200
10K
47K
C6502 0.22
C2025 0.022
R2014 3300
(V CHANGE M ON)
IC 2001 µPC368G2-T1
(REG 2.5V)
R2008 22K
C2013 0.01
C2022 0.01
C2021 6V47
D2004 MA151WK
C2009 1000P
C2027
R2005 100K
R2017 10K
REG 14V
(B11)
(B21) (B11)
B LINE


IC6001
MN67434VRSW
IC6001-82 REC
1.4Vp-p (10μsec. div)
IC6001-83 REC
3.5Vp-p (10μsec. div)
IC6001-5 REC
6.0Vp-p (0.5sec. div)
IC6001-64 REC
5.0Vp-p (10msec. div)
IC6001-63 REC
5.0Vp-p (10msec. div)
IC6001-60 REC
5.0Vp-p (10msec. div)
IC6001-19 REC
6.0Vp-p (0.5sec. div)
IC6001-43 REC
5.0Vp-p (10msec. div)
IC6001-26 REC
2.0Vp-p (10msec. div)
IC60001-27 REC
1.2Vp-p (0.5msec. div)
IC6001-34, 35 REC
6.0Vp-p (10msec. div)
IC6001-41 PLAY
3.0Vp-p (10msec. div)
SAFETY TAB
POSI SW3
POSI SW2
POSI SW1
R REEL
NOR/SER/TEST
DEW SNS
TEST
ENV SELECT
ROTARY SW
+5V (D)
H AMP SW
ART V MM
ART V/H/N
SLW TR MM
SLW TR REF
T PHOTO
S PHOTO
T REEL
CAP FG1
CAP PG2
CTL CLAMP(-)
CTL CLAMP(+)
CTL HEAD (-)
CTL HEAD (+)
CTL AMP SW
CTL AMP IN
CTL AMP REF
PB CTL OUT
S CLOCK
CAP R/S/F
CURR LIMIT
V HAED SW
LOADING
UNLOADING
SYSTEM 2
SYSTEM 3
V CHANGE
SENSOR LED ON
SHUT DOWN
INPUT 2
DECK SEL/SYSTEM SEL 2
SYSTEM 1
INPUT 1
SYSTEM SEL 1
SERIAL CLK SEL
AUDIO H SW
CYL PG MM
CYL PFG
PG SHIFTER
TL2009
TL2002
L2001
VLP0074

SERVO SPEED LOOP — — — CYLINDER SERVO PHASE LOOP



NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

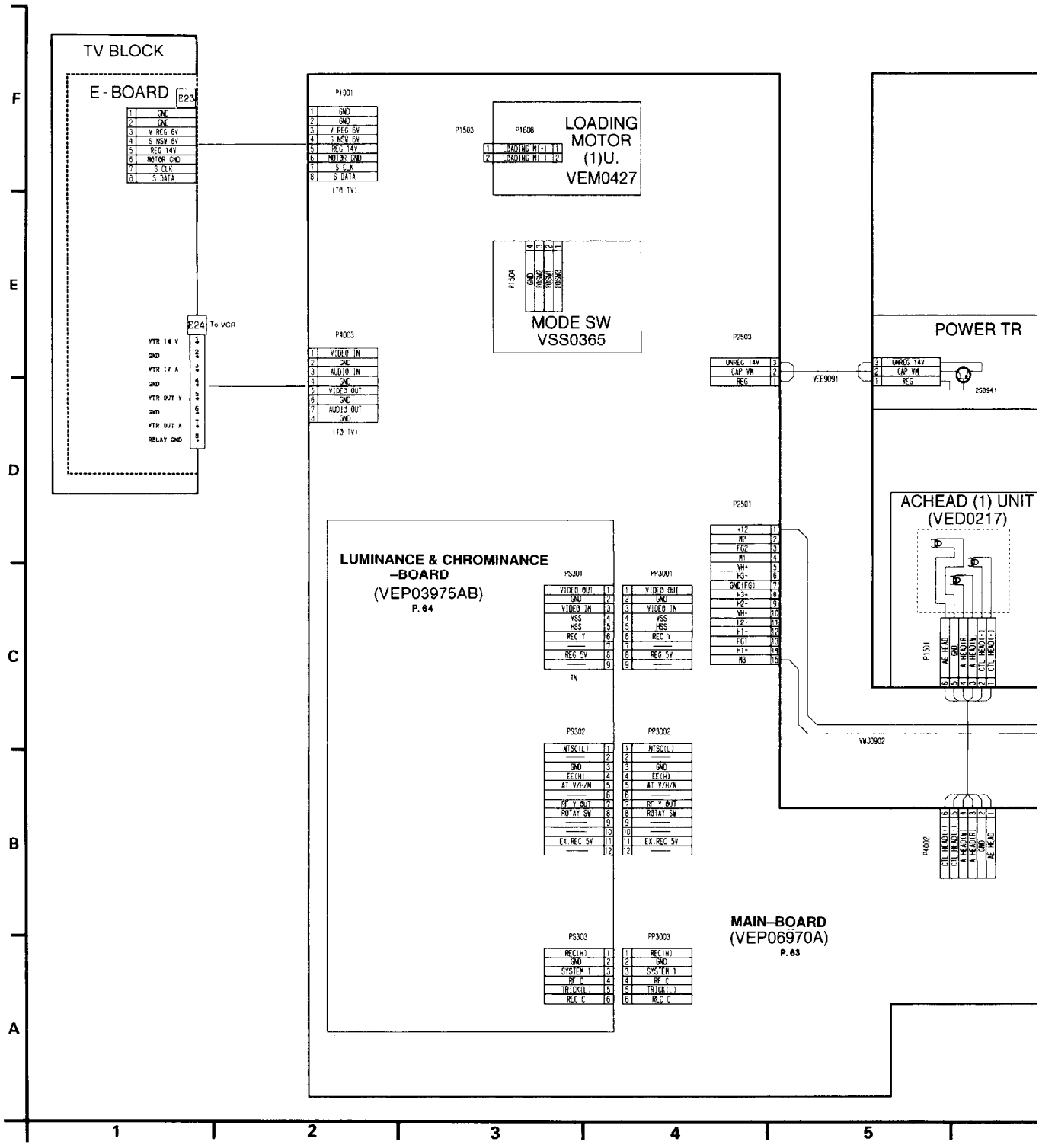
SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART

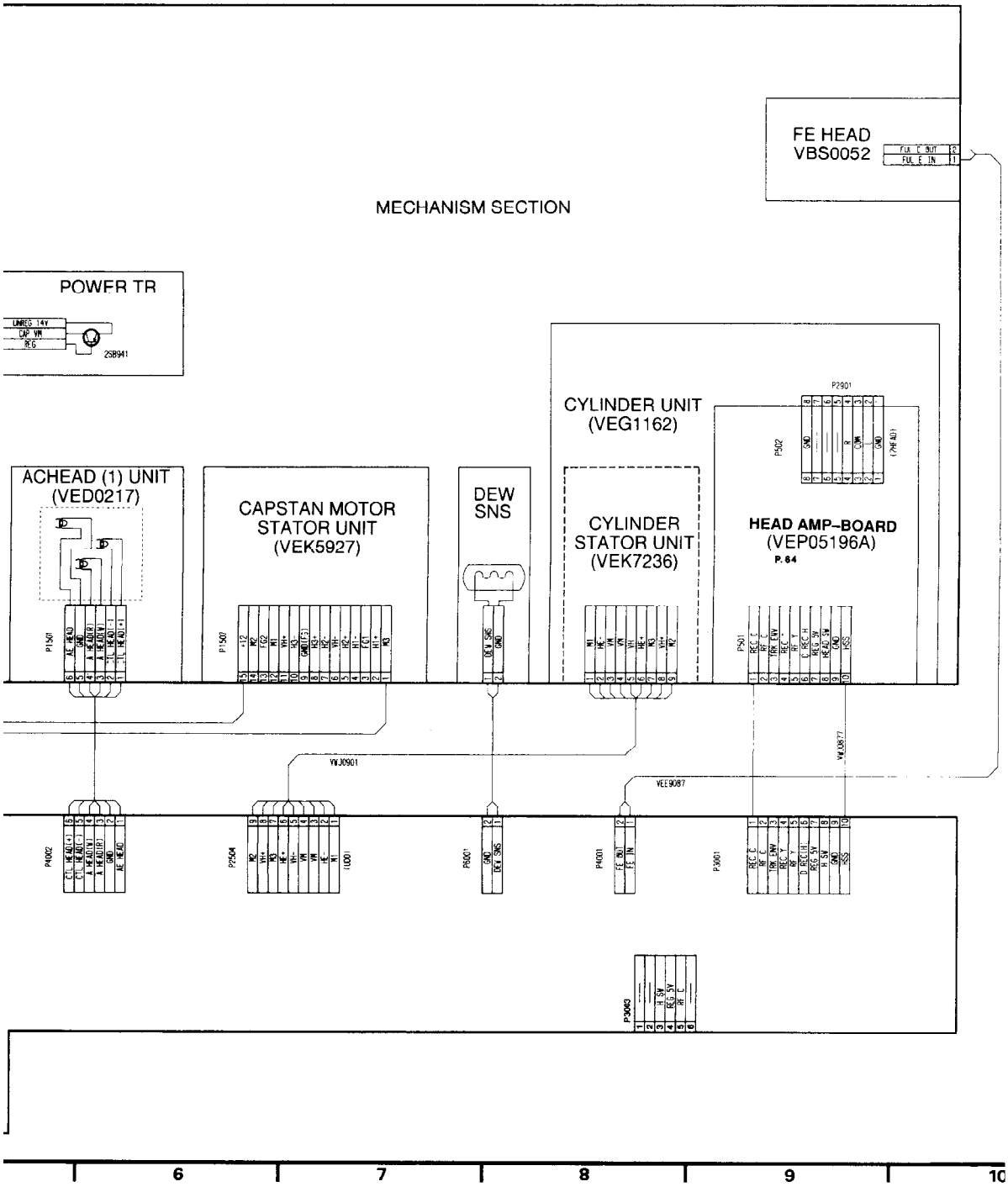
REF. NO.	IC2001																			
MODE	1	2	3	4	5	6	7	8												
STOP	0	0	0	0	2.5	2.5	2.5	5.0												
PLAY	0	0	0	0	2.5	2.5	2.5	5.0												
REC	0	0	0	0	2.5	2.5	2.5	5.0												
F.F	0	0	0	0	2.5	2.5	2.5	5.0												
REW	0	0	0	0	2.5	2.5	2.5	5.0												
REF. NO.	IC2501																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
STOP	14.3	14.3	0.1	1.1	0	2.5	2.5	2.6	2.5	2.7	5.1	3.8	3.8	3.8	1.3	15.0	14.3	0.1		
PLAY	14.5	15.1	0.1	1.1	0	2.6	2.5	2.6	2.5	2.7	5.1	3.8	3.7	3.9	1.4	14.9	14.6	0.1		
REC	14.9	14.9	0.1	1.0	0	2.6	2.5	2.6	2.5	2.7	5.1	4.8	3.8	3.8	1.1	14.8	14.5	6.0		
F.F	14.8	15.1	0.1	1.1	0	0	2.5	2.6	2.5	2.7	5.1	3.8	3.7	3.9	1.1	14.8	15.0	0.1		
REW	14.6	14.5	0.1	1.1	0	2.6	2.5	2.6	2.5	2.7	5.1	3.8	3.7	3.8	1.1	14.8	14.9	0.1		
REF. NO.	IC2502																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0.5	4.6	0.5	14.4	0.4	15.0	0	4.7	0.8	3.0	0.2	0.4	0.1	5.2	1.4	0	2.3	2.3	2.3	2.3
PLAY	2.9	4.6	2.8	13.8	2.1	14.9	0	1.3	0.8	3.0	2.7	0.5	0.1	5.2	1.4	0	2.3	2.4	2.4	2.4
REC	2.9	4.6	2.8	13.7	2.1	14.9	0	0.6	0.6	3.0	2.7	0.4	0.1	5.2	1.4	0	2.3	2.4	2.4	2.4
F.F	7.3	14.7	7.5	6.4	12.9	14.8	0	0.9	0.7	3.0	2.4	0.5	0.2	5.2	1.4	0	2.4	2.4	2.4	2.4
REW	7.3	14.8	7.3	12.5	12.9	14.9	0	0.6	0.7	3.0	2.7	0.4	0.1	5.2	1.4	0	2.3	2.3	2.3	2.3
REF. NO.	IC2502																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32								
STOP	2.3	2.3	0	5.8	6.0	6.1	6.0	11.8	2.1	0.5	0	0								
PLAY	2.4	2.4	0	3.6	6.0	6.1	6.1	11.8	0.1	2.9	0.1	0								
REC	2.4	2.3	0	6.1	6.0	6.1	6.1	11.8	0	2.9	0.1	0								
F.F	2.4	2.4	0	6.1	6.0	6.1	6.1	11.8	0	6.6	0.1	0								
REW	2.3	2.3	0	6.1	6.0	6.1	6.1	11.8	5.2	7.8	0.1	0								
REF. NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0.4	4.8	0	0	0.1	5.1	0	0	3.7	4.9	5.2	0	0	0	0	2.6	4.9	5.0	4.8	0
PLAY	0.5	5.0	0	0	4.5	5.1	0	0	3.8	5.2	5.2	0	0	0	0	2.6	4.8	4.9	4.4	0
REC	0	5.1	0	0	0.1	5.1	0	0	4.3	5.1	5.2	0	0	0	0	2.6	5.1	5.1	5.1	0
F.F	0.4	4.9	4.6	0	1.7	4.8	0	0	3.6	5.2	5.2	0	0	0	0	2.6	4.8	4.8	1.8	0
REW	0.6	4.4	4.6	0	1.8	4.9	0	0	2.9	3.8	5.2	0	0	0	0	2.6	4.7	4.7	2.4	0
REF. NO.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	5.2	5.2	0.2	2.5	1.9	2.9	2.8	2.6	0	2.6	2.4	2.7	5.0	0	0	0	2.6	2.8	0	2.6
PLAY	5.2	5.2	2.7	2.5	3.3	2.6	2.6	2.6	0	2.6	2.5	2.7	2.8	0	0	0	2.6	2.6	0	2.9
REC	5.2	5.2	2.7	2.5	0.8	2.5	2.5	2.5	0	2.6	2.4	2.7	5.1	3.7	3.8	0	2.6	2.5	0	2.5
F.F	5.2	5.2	2.7	2.5	2.6	2.8	2.7	2.7	0	2.6	2.5	2.7	4.6	0	0	0	2.6	2.6	0	3.1
REW	5.2	5.2	2.7	2.5	1.4	2.6	2.6	2.6	0	2.6	2.5	2.7	4.8	0	0	0	2.5	2.5	0	3.1
REF. NO.	IC6001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	2.5	5.1	1.6	3.3	0	4.4	4.9	0	4.9	0	0	4.9	4.9	5.2	5.1	0	0	0	0	4.1
PLAY	2.6	5.1	1.3	3.6	3.8	3.8	4.9	0	4.9	0	0	4.9	4.9	0.1	5.1	0	0	0	0	5.2
REC	2.6	5.1	1.2	3.7	0	4.6	4.9	0	4.8	0	0	4.8	0	0	5.1	0	0	0	0	5.2
F.F	2.6	5.1	1.3	3.2	0	4.5	4.9	0	4.9	0	0	4.9	4.9	0.1	0	0	0	0	0	5.2
REW	2.6	5.1	2.0	3.1	0	4.7	4.9	0	4.9	0	0	4.9	4.9	0.1	0	0	0	0	0	4.4
REF. NO.	IC6001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	5.1	2.1	4.6	4.4	4.9	0	0	0	0.1	5.1	0	5.2	5.2	0	0	5.1	0	0	5.1	0.1
PLAY	5.1	0	4.5	4.5	4.8	0	0	0	0.1	5.1	0	0	0	0	0	5.0	0	4.8	5.1	0.1
REC	5.1	0	4.6	4.7	5.2	5.2	5.1	0	5.2	5.1	0	0	5.2	0	0	5.1	0	0	5.1	0.1
F.F	5.1	1.7	4.7	4.7	4.9	0	0	0	0.1	5.2	0	0	5.2	0	0	0	0	0	5.2	0.1
REW	5.1	5.2	4.6	4.5	0	0	0	0	0.1	5.2	0	5.2	5.2	0	0	0	0	1.0	5.2	0.1
REF. NO.	IC6001																			
MODE	81	82	83	84																
STOP	0	2.5	2.6	4.8																
PLAY	0	2.3	2.6	4.8																
REC	0	2.4	2.6	4.9																
F.F	0	2.4	2.6	4.8																
REW	0	2.4	2.6	4.8																
REF. NO.	IC6002										IC8501									
MODE	1	2	3								1	2	3	4	5	6	7	8	9	10
STOP	4.9	0	4.9								1.8	15.2	15.2	0	0	0	7.4	9.9	4.7	0
PLAY	4.9	0	4.9								1.6	14.8	14.8	0	0	0	7.4	9.8	0.3	0
REC	4.8	0	4.9								4.2	14.8	14.8	0	0	0	7.4	9.8	2.4	0
F.F	4.9	0	4.9								5.7	14.7	14.9	0	0	0	14.9	9.8	4.2	0
REW	4.9	0	4.9								6.2	14.8	14.8	0	0	0	14.9	9.9	4.4	0

SYSTEM CONTROL & SERVO TRANSISTORs DC VOLTAGE CHART

REF. NO.	Q1101			Q1102			Q2502			Q2504								
MODE	E	C	B	E	C	B	E	C	B	E	C	B						
STOP	11.8	15.0	12.4	5.0	12.4	5.7	11.8	11.8	11.0	4.9	4.1	4.9						
PLAY	11.8	14.7	12.4	5.0	12.3	5.6	11.8	11.7	11.0	4.8	4.8	4.1						
REC	11.8	14.7	12.4	5.0	12.3	5.6	11.8	11.7	11.0	4.8	4.8	4.1						
F.F	11.7	14.7	12.4	5.0	12.4	5.6	11.8	11.8	11.0	4.9	4.8	4.1						
REW	11.8	14.7	12.4	5.0	12.3	5.6	11.8	11.8	11.0	4.9	4.8	4.1						
REF. NO.	QR1101			QR2001						QR2002			QR6501					
MODE	E	C	B	1	2	3	4	5		E	C	B	1	2	3	4	5	
STOP	0	12.4	0	0	0	5.1	0	5.1		5.1	4.8	5.1	0	0	5.1	0	5.1	
PLAY	0	12.4	0	0	0	5.1	0	5.1		5.1	4.8	5.1	0	0	5.1	0	5.1	
REC	0	12.4	0.4	0	0	5.1	0	5.1		5.1	4.8	5.1	0	0	5.1	0	5.1	
F.F	0	12.4	0	0	0.7	0	0	0		5.1	4.8	5.1	14.8	10.6	0	0	0	
REW	0	12.4	0	0	1.7	0	0	0		5.1	4.8	5.1	14.8	10.4	0	0	0	

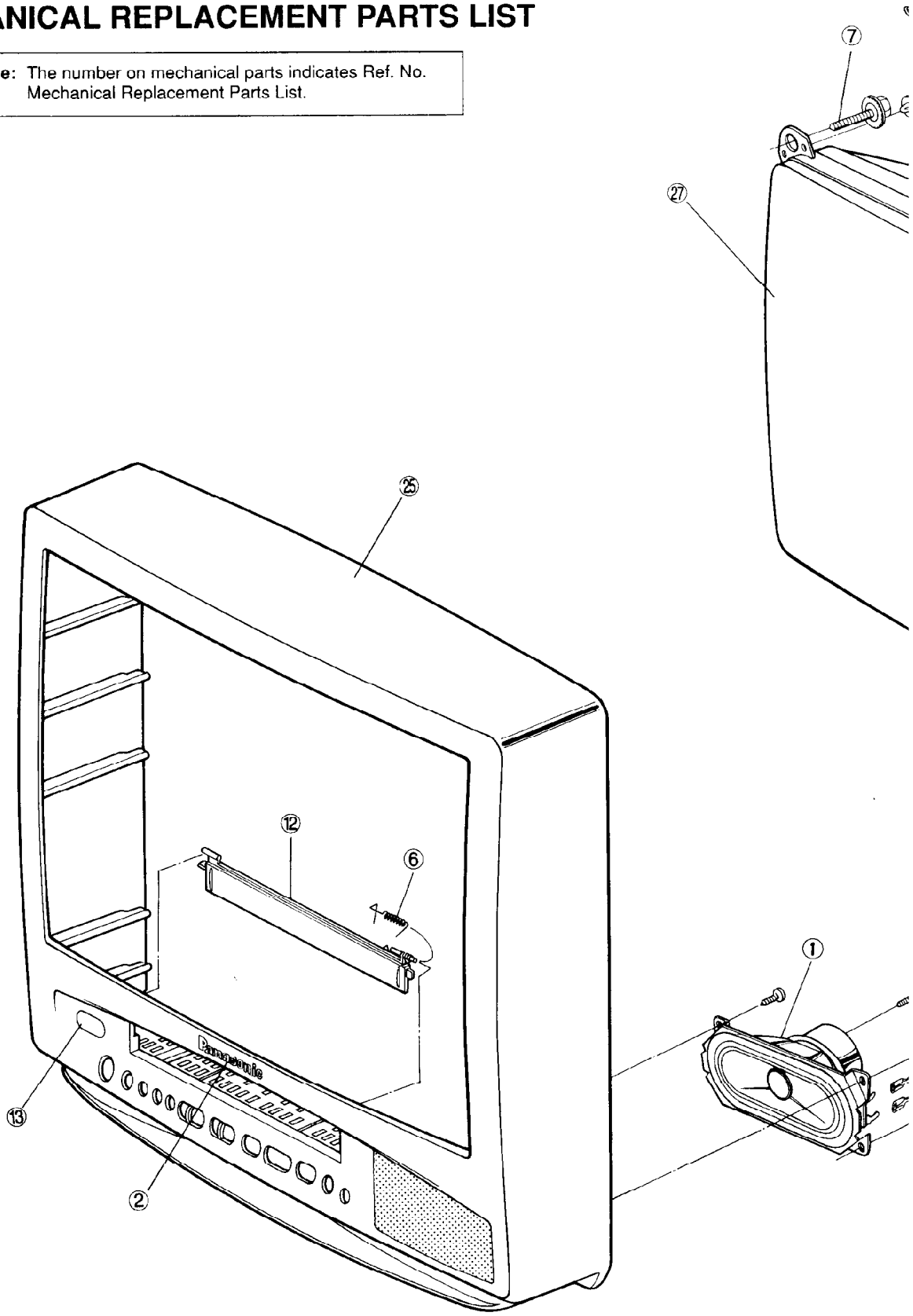
Interconnection Schematic Diagram

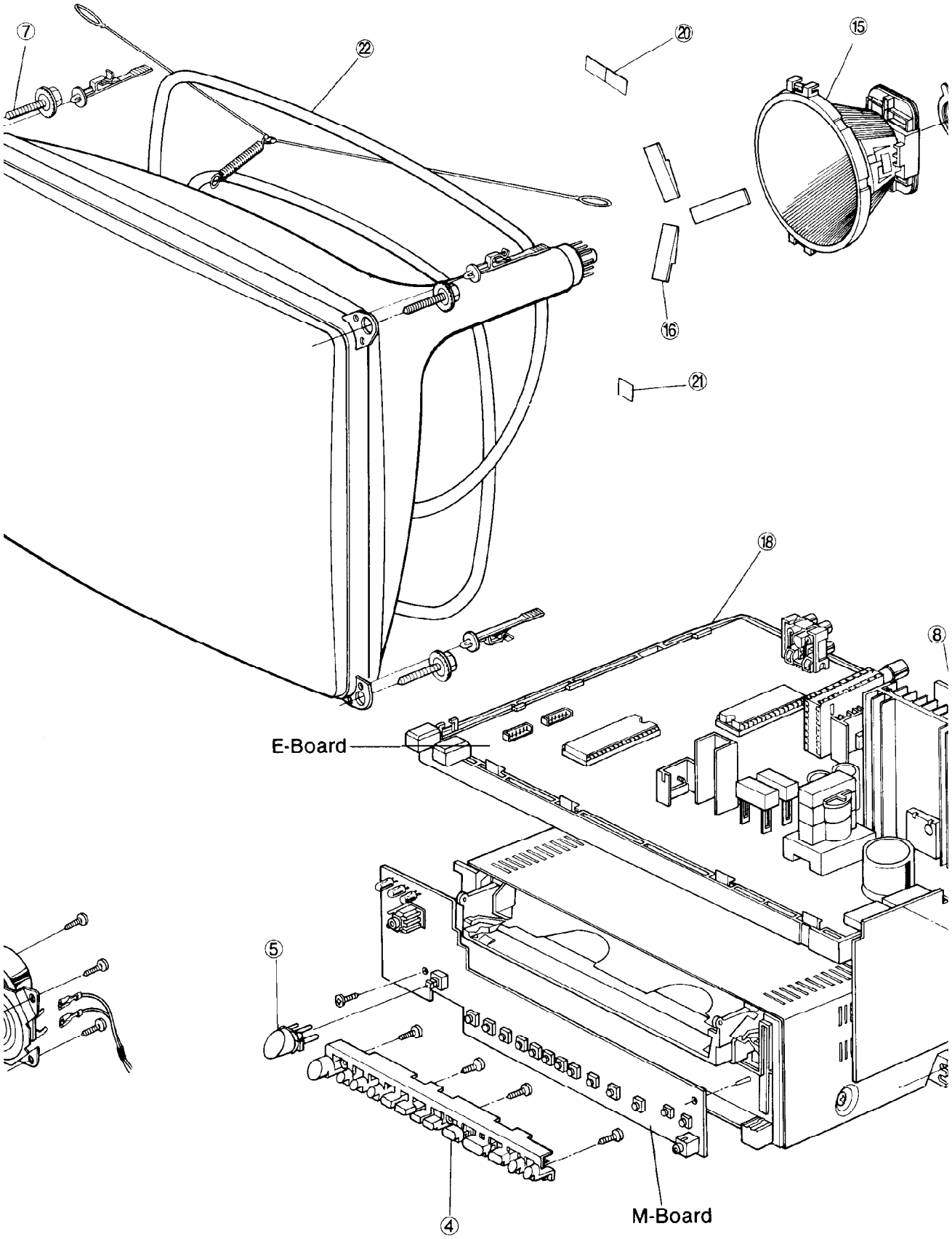


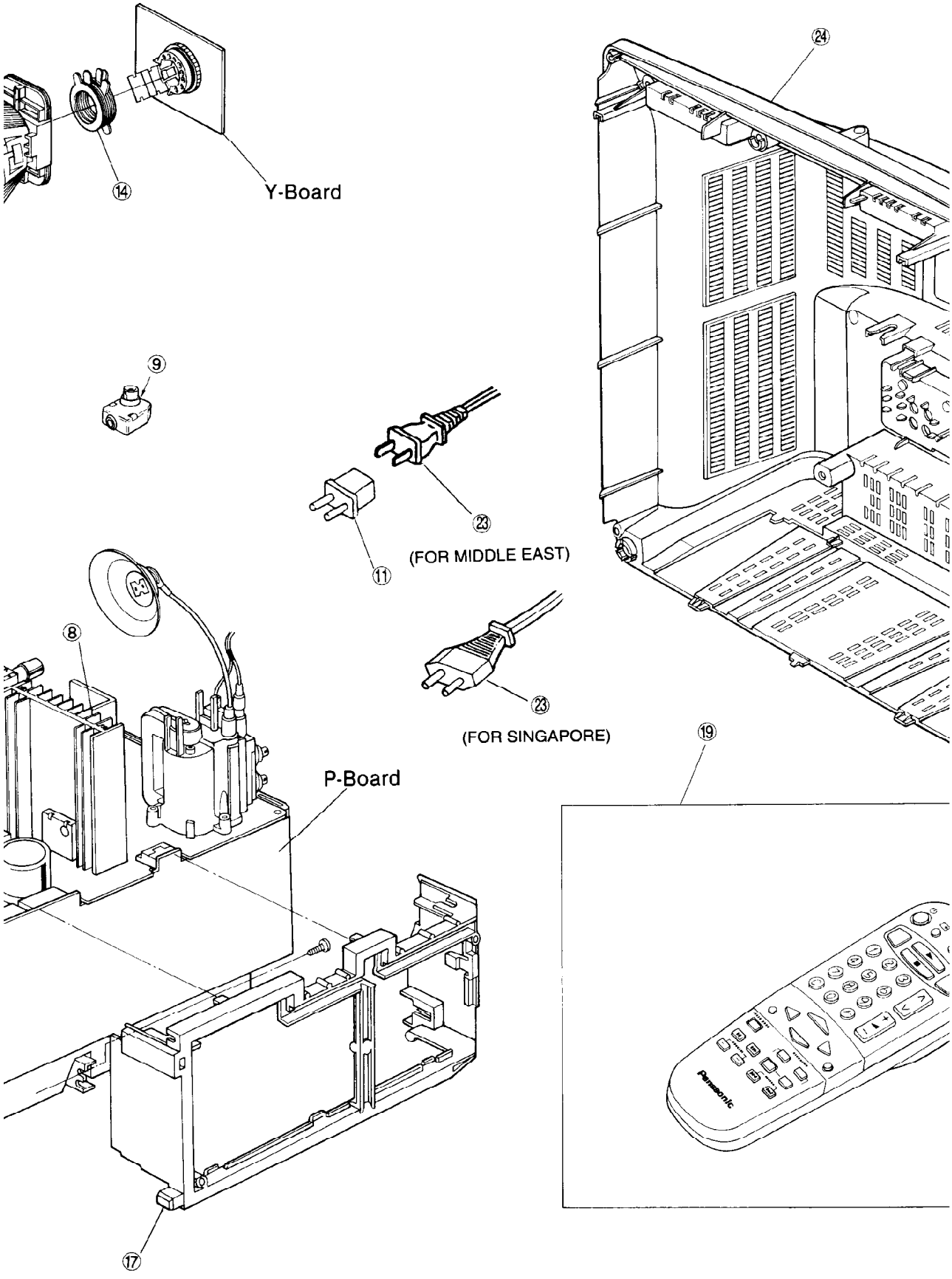

MECHANISM SECTION
FE HEAD
VBS0052
POWER TR
UNREG 14V
CAP VM
REG
2SB941
CYLINDER UNIT
(VEG1162)
ACHEAD (1) UNIT
(VED0217)
CAPSTAN MOTOR
STATOR UNIT
(VEK5927)
DEW
SNS
CYLINDER
STATOR UNIT
(VEK7236)
HEAD AMP-BOARD
(VEP05196A)
P.64
P1501
P1507
P2901
P502
P501
P4002
P2504
P5001
P4001
P3001
P3003
VNJ0901
VEE9087
VNJ0877
6
7
8
9
10

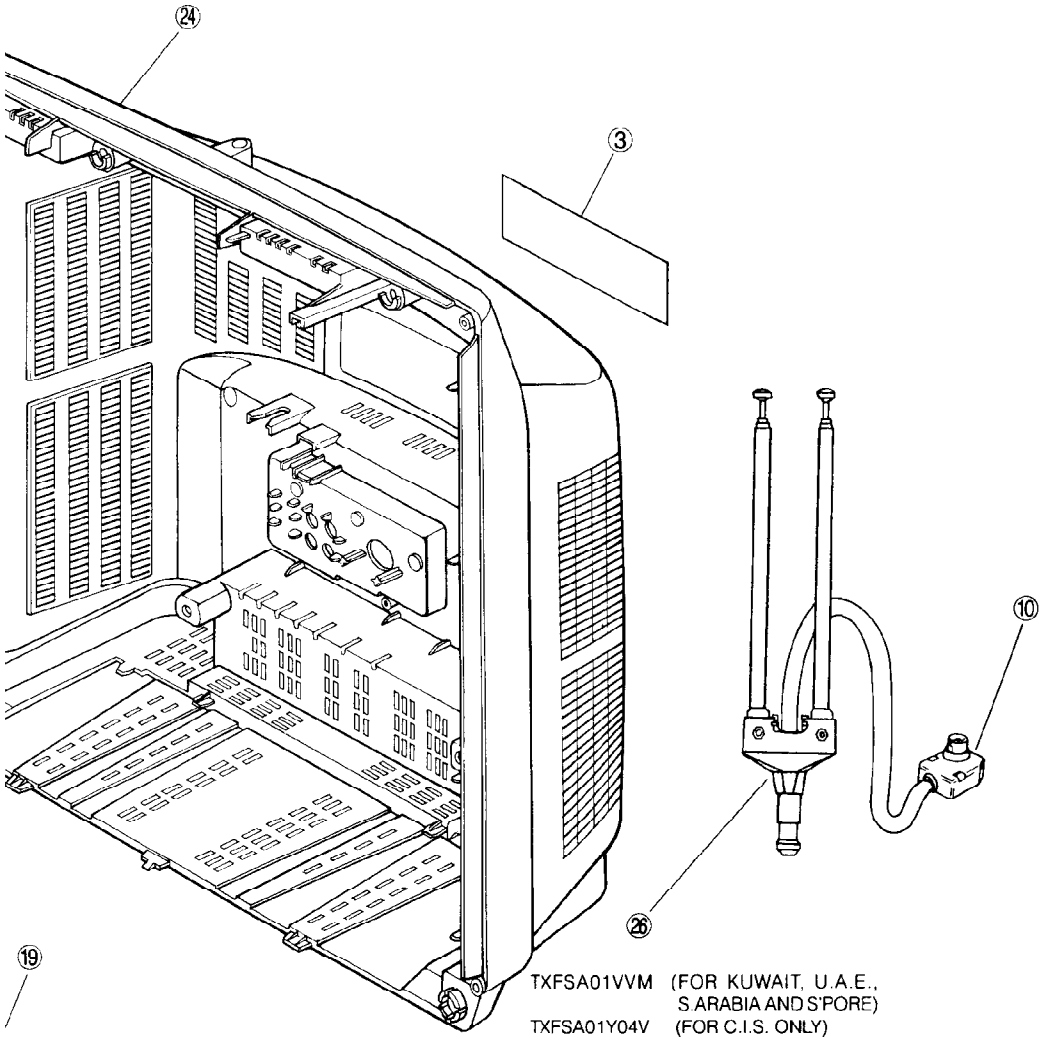
PARTS LOCATION &
MECHANICAL REPLACEMENT PARTS LIST

Note: The number on mechanical parts indicates Ref. No. Mechanical Replacement Parts List.



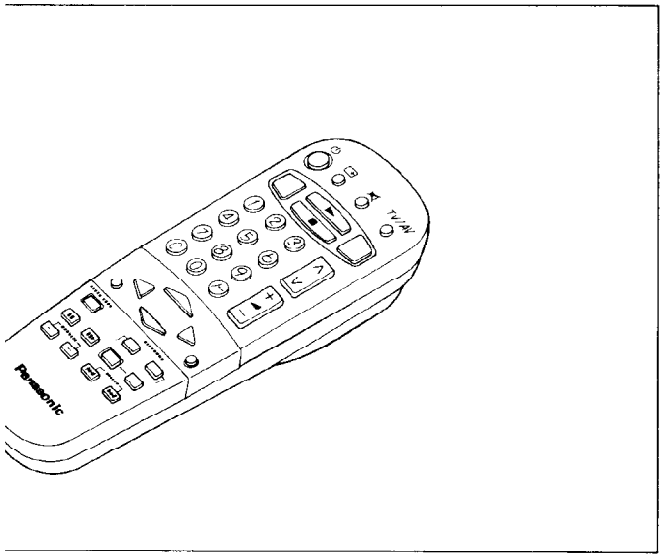

⑦
㉒
⑳
⑮
⑯
㉑
⑱
⑧
E-Board
⑤
④
M-Board


⑭
Y-Board
⑨
㉓
⑪
(FOR MIDDLE EAST)
㉓
(FOR SINGAPORE)
⑧
P-Board
⑰
㉔
⑲
Panasonic



TXFSA01VVM (FOR KUWAIT, U.A.E., S.ARABIA AND S'PORE)

TXFSA01Y04V (FOR C.I.S. ONLY)



Replacement Parts List

Ref.No.	Part No.	Description
	MECHANICAL PARTS	
1	EAS-10P447AG	SPEAKER MTV
2	TBM173056	PANASONIC BADGE MTV
3	TBMC006	MODEL NAME PLATE MTV (FOR CIS ONLY)
3	TBM170815	MODEL NAME PLATE MTV (FOR SINGAPORE ONLY)
4	TBX2888301	13 KEY BUTTON MTV
5	TBX2888400	POWER BUTTON
6	TESD002	BLINDER SPRING MTV
7	TES4223	SPRING
8	TES6583	SPRING FOR TR
9	TJB1725100	75-300OHM ADAPTOR
10	TJB1726400	ADAPTOR MTV
11	TJS2A8420	AC PLUG ADAPTOR (FOR KUWAIT, U.A.E. AND S.ARABIA)
12	TKP17A3109-1	BLINDER PANEL MTV
13	TKP17A3501	INDICATOR PANEL MTV
14	TLC2042-3	CONVERGENCE YOKE
15	TLY26358F	DEFLECTION YOKE MTV ⚠
16	TMM27523	DY WEDGE
17	TMW17350	BRACKET MTV
18	TMX17146	CHASSIS FRAME MTV
NLA	TNP117051	P BOARD MTV ⚠
NLA	TNP117060	M BOARD MTV ⚠
NLA	TNP117066	Y BOARD MTV ⚠
NLA	TNP19U86AB	E BOARD MTV ⚠
19	TNQ10481	REMOTE CONTROL TRANS. MTV
	TPC1819401	CARTON MTV (FOR KUWAIT, U.A.E. AND S.ARABIA)
	TPC1819402	CARTON MTV (FOR CIS. AND SINGAPORE)
	TPD191637	CUSHION (TOP) MTV
	TPD192620	CUSHION (BOTTOM) MTV
	TPE4G14003	LAMI BAG MTV
	TPE4G14007	SET COVER MTV
	TQB4G1163	FAN BAG MTV (FOR KUWAIT AND U.A.E)
	TQB4G1140	FAN BAG MTV (FOR S.ARABIA)
	TQB4G1141	FAN BAG MTV (FOR CIS)
	TQB4G1144	FAN BAG MTV (FOR SINGAPORE)
20	TSM10032-2	MAGNET
21	TSN63115-4	PURITY MAGNET MTV
22	TSPA002	DEGAUSSING COIL MTV ⚠
23	TSX1467H	AC POWER CORD MTV (FOR KUWAIT, U.A.E. AND S.ARABIA) ⚠
23	TSX1468H	AC POWER CORD MTV (FOR CIS. AND SINGAPORE) ⚠
24	TTU120069	BACK COVER MTV
25	TTY170091	CABINET MTV
26	TXFSA01VVM	DIPOLE ANTENNA MTV (FOR KUWAIT, U.A.E, S.ARABIA, S'PORE)
26	TXFSA01YD4V	DIPOLE ANTENNA MTV (FOR CIS ONLY)
27	37GDC85X	PICTURE TUBE MTV ⚠
	RESISTORS	

Ref.No.	Part No.	Description
R012	ERDS2TJ123	C 12KOHM, J, 1/4W
R016	ERG3SJ153H	M 15KOHM, J, 3W
R104	ERDS2TJ822	C 8.2KOHM, J, 1/4W
R105	ERDS2TJ102	C 1KOHM, J, 1/4W
R106	ERD25FJ220	C 22OHM, J, 1/4W
R107	ERDS2TJ681	C 680OHM, J, 1/4W
R118	ERDS2TJ473	C 47KOHM, J, 1/4W
R119	ERDS2TJ273	C 27KOHM, J, 1/4W
R120	ERD25TJ223	C 22KOHM, J, 1/4W
R125	ERDS2TJ821	C 820OHM, J, 1/4W
R150	ERDS2TJ471	C 470OHM, J, 1/4W
R151	ERDS2TJ471	C 470OHM, J, 1/4W
R152	ERDS2TJ151	C 150OHM, J, 1/4W
R153	ERDS2TJ331	C 330OHM, J, 1/4W
R154	ERDS2TJ102	C 1KOHM, J, 1/4W
R155	ERDS2TJ331	C 330OHM, J, 1/4W
R156	ERDS2TJ331	C 330OHM, J, 1/4W
R157	ERDS2TJ153	C 15KOHM, J, 1/4W
R158	ERDS2TJ472	C 4.7KOHM, J, 1/4W
R160	ERDS2TJ684	C 680KOHM, J, 1/4W
R161	ERDS2TJ470	C 47OHM, J, 1/4W
R223	ERDS2TJ221	C 220OHM, J, 1/4W
R226	ERDS2TJ103	C 10KOHM, J, 1/4W
R233	ERDS2TJ153	C 15KOHM, J, 1/4W
R234	ERDS2TJ472	C 4.7KOHM, J, 1/4W
R235	ERDS2TJ102	C 1KOHM, J, 1/4W
R236	ERDS2TJ332	C 3.3KOHM, J, 1/4W
R238	ERDS2TJ332	C 3.3KOHM, J, 1/4W
R239	ERDS2TJ103	C 10KOHM, J, 1/4W
R240	ERDS2TJ333	C 33KOHM, J, 1/4W
R251	ERD25TJ102	C 1KOHM, J, 1/4W
R253	ERDS2TJ221	C 220OHM, J, 1/4W
R254	ERQ14AJ100P	F 10OHM, J, 1/4W ⚠
R255	ERDS2TJ472	C 4.7KOHM, J, 1/4W
R256	ERDS2TJ471	C 470OHM, J, 1/4W
R258	ERDS2TJ332	C 3.3KOHM, J, 1/4W
R259	ERQ1CJP120S	F 12OHM, J, 1W ⚠
R260	ERG1SJ222P	M 2.2KOHM, J, 1W
R261	ERDS2TJ3R3	C 3.3OHM, J, 1/4W
R262	ERDS2TJ750	C 75OHM, J, 1/4W
R351	ERG2SJ123H	M 12KOHM, J, 2W
R352	ERG2SJ123H	M 12KOHM, J, 2W
R353	ERG2SJ123H	M 12KOHM, J, 2W
R354	ERDS1TJ272	C 2.7KOHM, J, 1/2W
R355	ERDS1TJ272	C 2.7KOHM, J, 1/2W
R356	ERDS1TJ272	C 2.7KOHM, J, 1/2W
R366	ERDS2TJ391	C 390OHM, J, 1/4W
R367	ERDS2TJ391	C 390OHM, J, 1/4W
R368	ERDS2TJ391	C 390OHM, J, 1/4W
R369	ERDS2TJ103	C 10KOHM, J, 1/4W
R370	ERDS2TJ103	C 10KOHM, J, 1/4W
R371	ERDS2TJ103	C 10KOHM, J, 1/4W
R372	ERDS2TJ101	C 100OHM, J, 1/4W
R373	ERDS2TJ101	C 100OHM, J, 1/4W
R374	ERDS2TJ101	C 100OHM, J, 1/4W

Ref.No.	Part No.	Description
R406	ERD25TJ103	C 10KOHM. J.1/4W
R413	ERDS2TJ101	C 100OHM. J.1/4W
R414	ERDS2TJ332	C 3.3KOHM. J.1/4W
R415	ERDS2TJ273	C 27KOHM. J.1/4W
R416	ERDS2TJ473	C 47KOHM. J.1/4W
R417	ERDS2TJ333	C 33KOHM. J.1/4W
R418	ERDS2TJ334	C 330KOHM. J.1/4W
R419	ERD25TJ100	C 10OHM. J.1/4W
R420	ERDS2TJ561	C 560OHM. J.1/4W
R421	ERDS2TJ683	C 68KOHM. J.1/4W
R422	ERDS2TJ273	C 27KOHM. J.1/4W
R423	ERD25TJ103	C 10KOHM. J.1/4W
R425	ERDS2TJ155	C 1.5MOHM. J.1/4W
R426	ERDS2TJ225	C 2.2MOHM. J.1/4W
R427	ERQ12HJ2R7	F 2.7OHM. J.1/2W ⚠
R428	ERDS2TJ563	C 56KOHM. J.1/4W
R429	ERDS2TJ684	C 680KOHM. J.1/4W
R443	ERDS2TJ102	C 1KOHM. J.1/4W
R444	ERDS1FJ152	C 1.5KOHM. J.1/2W
R449	ERDS2TJ152	C 1.5KOHM. J.1/4W
R450	ERD2FAVJ1R5T	C 1.5OHM. J.1/4W MTV
R452	ERDS2TJ103	C 10KOHM. J.1/4W
R455	ERDS2TJ102	C 1KOHM. J.1/4W
R456	ERDS1FJ4R7	C 4.7OHM. J.1/2W
R465	ERDS2TJ823	C 82KOHM. J.1/4W
R470	ERDS2TJ102	C 1KOHM. J.1/4W
R505	ERD25TJ561	C 560OHM. J.1/4W
R510	ERDS2TJ154	C 150KOHM. J.1/4W
R514	ERD25TJ682	C 6.8KOHM. J.1/4W
R515	ERDS2TJ822	C 8.2KOHM. J.1/4W
R516	ERDS2TJ561	C 560OHM. J.1/4W
R520	ERDS2TJ103	C 10KOHM. J.1/4W
R522	ERQ12AJ2R2P	F 2.2OHM. J.1/2W ⚠
R523	ERQ1CJP3R0S	F 3.0OHM. 1W MTV ⚠
R526	ERG3ANJ822	M 8.2KOHM. J. 3W MTV
R527	ERDS2TJ683	C 68KOHM. J.1/4W
R528	ERQ12HJ1R0	F 1OHM. J.1/2W ⚠
R529	ERD25TJ334	C 330KOHM. J.1/4W
R531	ERDS2TJ223	C 22KOHM. J.1/4W
R532	ERDS2TJ104	C 100KOHM. J.1/4W
R533	ERDS2TJ103	C 10KOHM. J.1/4W
R538	ERDS2TJ102	C 1KOHM. J.1/4W
R539	ERDS2TJ104	C 100KOHM. J.1/4W
R551	ERDS2TJ222	C 2.2KOHM. J.1/4W
R552	ERG5ZJ272	M 2.7KOHM. J. 5W
R557	ERDS1TJ105	C 1MOHM. J.1/2W
R566	ERDS2TJ104	C 100KOHM. J.1/4W
R567	ERDS2TJ223	C 22KOHM. J.1/4W
R568	ERDS2TJ104	C 100KOHM. J.1/4W
R601	ERDS2TJ153	C 15KOHM. J.1/4W
R603	ERDS2TJ153	C 15KOHM. J.1/4W
R606	ERDS2TJ105	C 1MOHM. J.1/4W
R612	ERDS2TJ682	C 6.8KOHM. J.1/4W
R613	ERDS2TJ184	C 180KOHM. J.1/4W
R614	ERD25TJ331	C 330OHM. J.1/4W
R615	ERDS2TJ102	C 1KOHM. J.1/4W

Ref.No.	Part No.	Description
R616	ERD25TJ331	C 330OHM. J.1/4W
R617	ERDS2TJ102	C 1KOHM. J.1/4W
R618	ERDS2TJ331	C 330OHM. J.1/4W
R619	ERDS2TJ102	C 1KOHM. J.1/4W
R620	ERDS2TJ105	C 1MOHM. J.1/4W
R621	ERDS2TJ101	C 100OHM. J.1/4W
R622	ERDS2TJ101	C 100OHM. J.1/4W
R623	ERDS2TJ821	C 820OHM. J.1/4W
R624	ERDS2TJ391	C 390OHM. J.1/4W
R625	ERDS2TJ122	C 1.2KOHM. J.1/4W
R627	ERDS2TJ122	C 1.2KOHM. J.1/4W
R628	ERDS2TJ122	C 1.2KOHM. J.1/4W
R630	ERDS2TJ474	C 470KOHM. J.1/4W
R632	ERDS2TJ334	C 330KOHM. J.1/4W
R637	ERDS2TJ121	C 120OHM. J.1/4W
R638	ERDS2TJ271	C 270OHM. J.1/4W
R639	ERDS2TJ684	C 680KOHM. J.1/4W
R640	ERDS2TJ221	C 220OHM. J.1/4W
R641	ERDS2TJ681	C 680OHM. J.1/4W
R642	ERDS2TJ561	C 560OHM. J.1/4W
R644	ERDS2TJ103	C 10KOHM. J.1/4W
R645	ERDS2TJ103	C 10KOHM. J.1/4W
R646	ERD25TJ102	C 1KOHM. J.1/4W
R648	ERDS2TJ271	C 270OHM. J.1/4W
R649	ERDS2TJ331	C 330OHM. J.1/4W
R651	ERDS2TJ105	C 1MOHM. J.1/4W
R652	ERD25TJ104	C 100KOHM. J.1/4W
R670	ERD25TJ470	C 47OHM. J.1/4W
R671	ERD25TJ222	C 2.2KOHM. J.1/4W
R672	ERDS2TJ103	C 10KOHM. J.1/4W
R675	ERDS2TJ123	C 12KOHM. J.1/4W
R676	ERDS2TJ102	C 1KOHM. J.1/4W
R677	ERDS2TJ473	C 47KOHM. J.1/4W
R678	ERDS2TJ473	C 47KOHM. J.1/4W
R803	ERG2SJS563	M 56KOHM. J. 2W MTV
R805	ERG2SJS473	M 47KOHM. J. 2W MTV
R806	ERG1SJ103P	M 10KOHM. J. 1W
R807	ERG1SJ100P	M 10OHM. J. 1W
R808	ERG1ANJ203	M 20KOHM. J. 1W
R809	ERF10ZK4R7	W 4.7OHM. K. 10W
R810	ERX2SJR22P	M 0.22OHM. J. 2W
R812	ERD25TJ681	C 680OHM. J.1/4W
R813	ERDS2TJ362	C 3.6KOHM. J.1/4W
R814	ERDS2TJ101	C 100OHM. J.1/4W
R815	ERDS1FJ332	C 3.3KOHM. J.1/2W
R816	ERQ1CZKR22	F 0.22OHM. K. 1W MTV ⚠
R817	ERF2AKR10	W 0.1OHM. K. 2W
R819	ERDS2TJ223	C 22KOHM. J.1/4W
R820	ERDS2TJ223	C 22KOHM. J.1/4W
R821	ERD75TAJ825	C 8.2MOHM. J.3/4W
R822	ERQ12HKR47	F 0.47OHM. K.1/2W ⚠
R823	ERDS2TJ153	C 15KOHM. J.1/4W
R824	ERF5ZJ120	W 12OHM. J. 5W
R825	ERDS2TJ272	C 2.7KOHM. J.1/4W
R826	ERQ14AJ471P	F 470OHM. J.1/4W ⚠
R827	ERG3SJS104	M 100KOHM. J. 3W MTV

Ref.No.	Part No.	Description	
R828	ERF5ZJ120	W 12OHM. J. 5W	
R829	ERG1SJS822	M 8.2KOHM. J. 1W	MTV
R831	ERDS2TJ152	C 1.5KOHM. J.1/4W	
R833	ERDS2TJ331	C 330OHM. J.1/4W	
R834	ERQ12AJ390	F 39OHM. 1/2W	⚠
R835	ERDS2TJ103	C 10KOHM. J.1/4W	
R836	ERDS2TJ561	C 560OHM. J.1/4W	
R837	ERDS2TJ102	C 1KOHM. J.1/4W	
R838	ERDS2TJ223	C 22KOHM. J.1/4W	
R839	ERDS2TJ223	C 22KOHM. J.1/4W	
R840	ERDS2TJ223	C 22KOHM. J.1/4W	
R841	ERDS2TJ102	C 1KOHM. J.1/4W	
R842	ERG2SJS223	M 22KOHM. J. 2W	MTV
R843	ERDS2TJ473	C 47KOHM. J.1/4W	
R845	ERDS1FJ103	C 10KOHM. J.1/2W	
R846	ERDS2TJ103	C 10KOHM. J.1/4W	
R848	ERD25TJ222	C 2.2KOHM. J.1/4W	
R850	ERDS2TJ332	C 3.3KOHM. J.1/4W	
R853	ERG3SJS151	M 150OHM. J. 3W	MTV
R854	ERDS2TJ330	C 33OHM. J.1/4W	
R858	ERDS2TJ472	C 4.7KOHM. J.1/4W	
R860	ERDS2TJ103	C 10KOHM. J.1/4W	
R861	ERG2SJS101	M 100OHM. J. 2W	MTV
R863	ERDS2TJ682	C 6.8KOHM. J.1/4W	
R865	ERDS2TJ103	C 10KOHM. J.1/4W	
R866	ERG2SJS390	M 39OHM. J. 2W	MTV
R867	ERDS2TJ103	C 10KOHM. J.1/4W	
R870	ERG1SJ181P	M 180OHM. J. 1W	
R874	ERG1SJS104	M 100KOHM. J. 1W	MTV
R875	ERF2AK2R2	W 2.2OHM. K. 2W	MTV
R876	ERG1SJS104	M 100KOHM. J. 1W	MTV
R877	ERG1SJS104	M 100KOHM. J. 1W	MTV
R878	ERG2SJS820	M 82OHM. J. 2W	MTV
R879	ERG2SJS104	M 100KOHM. J. 2W	MTV
R880	ERX1SJR56P	M 0.56OHM. J. 1W	MTV
R889	ERDS1FJ183	C 18KOHM. J.1/2W	
R892	ERQ16NK1R0E	F 1.0OHM. 1/6W	⚠
R893	ERF2AK2R2	W 2.2OHM. K. 2W	MTV
R1124	ERD25TJ102	C 1KOHM. J.1/4W	
R1125	ERDS2TJ103	C 10KOHM. J.1/4W	
R1131	ERDS2TJ683	C 68KOHM. J.1/4W	
R1133	ER0S2CKF2152	M21.5KOHM. F.1/4W	
R1134	ER0S2CKF9531	M9.53KOHM. F.1/4W	
R1135	ER0S2CKF4871	M4.87KOHM. F.1/4W	
R1136	ERD25TJ103	C 10KOHM. J.1/4W	
R1136	ER0S2CKF3161	M3.16KOHM. F.1/4W	
R1137	ER0S2CKF2371	M2.37KOHM. F.1/4W	
R1138	ERD25TJ105	C 1MOHM. J.1/4W	
R1138	ER0S2CKF2371	M2.37KOHM. F.1/4W	
R1139	ERDS2TJ182	C 1.8KOHM. J.1/4W	
R1141	ERDS2TJ103	C 10KOHM. J.1/4W	
R1143	ER0S2CKF9531	M9.53KOHM. F.1/4W	
R1144	ER0S2CKF4871	M4.87KOHM. F.1/4W	
R1145	ER0S2CKF3161	M3.16KOHM. F.1/4W	
R1146	ER0S2CKF2371	M2.37KOHM. F.1/4W	
R1147	ER0S2CKF2371	M2.37KOHM. F.1/4W	

Ref.No.	Part No.	Description
R1152	ERDS2TJ101	C 100OHM. J.1/4W
R1157	ERDS2TJ221	C 220OHM. J.1/4W
R1158	ERDS2TJ223	C 22KOHM. J.1/4W
R1160	ERDS2TJ333	C 33KOHM. J.1/4W
R1161	ERDS2TJ153	C 15KOHM. J.1/4W
R1163	ERDS2TJ223	C 22KOHM. J.1/4W
R1164	ERD25TJ332	C 3.3KOHM. J.1/4W
R1165	ERDS2TJ103	C 10KOHM. J.1/4W
R1167	ERDS2TJ561	C 560OHM. J.1/4W
R1168	ERDS2TJ561	C 560OHM. J.1/4W
R1169	ERDS2TJ561	C 560OHM. J.1/4W
R1170	ERDS2TJ103	C 10KOHM. J.1/4W
R1171	ERDS2TJ561	C 560OHM. J.1/4W
R1172	ERDS2TJ103	C 10KOHM. J.1/4W
R1177	ERDS2TJ103	C 10KOHM. J.1/4W
R1178	ERDS2TJ221	C 220OHM. J.1/4W
R1181	ER0S2CKF1002	M 10KOHM. F.1/4W
R1182	ER0S2CKF1002	M 10KOHM. F.1/4W
R1184	ERDS2TJ681	C 680OHM. J.1/4W
R1189	ERDS2TJ102	C 1KOHM. J.1/4W
R1190	ERDS2TJ102	C 1KOHM. J.1/4W
R1192	ERDS2TJ101	C 100OHM. J.1/4W
R1194	ERD25TJ102	C 1KOHM. J.1/4W
R1200	ERDS2TJ102	C 1KOHM. J.1/4W
R1201	ERDS2TJ101	C 100OHM. J.1/4W
R1202	ERD25TJ101	C 100OHM. J.1/4W
R1203	ERD25TJ101	C 100OHM. J.1/4W
R1204	ERD25TJ101	C 100OHM. J.1/4W
R1205	ERD25TJ101	C 100OHM. J.1/4W
R1207	ERD25TJ222	C 2.2KOHM. J.1/4W
R1208	ERD25TJ101	C 100OHM. J.1/4W
R1209	ERD25TJ222	C 2.2KOHM. J.1/4W
R1210	ERDS2TJ182	C 1.8KOHM. J.1/4W
R1213	ERD25TJ222	C 2.2KOHM. J.1/4W
R1214	ERD25TJ222	C 2.2KOHM. J.1/4W
R1215	ERDS2TJ101	C 100OHM. J.1/4W
R1216	ERDS2TJ101	C 100OHM. J.1/4W
R1217	ERDS2TJ102	C 1KOHM. J.1/4W
R1218	ERDS2TJ102	C 1KOHM. J.1/4W
R1219	ERDS2TJ392	C 3.9KOHM. J.1/4W
R1220	ERD25TJ101	C 100OHM. J.1/4W
R1221	ERDS2TJ392	C 3.9KOHM. J.1/4W
R1224	ERDS2TJ103	C 10KOHM. J.1/4W
R1225	ERDS2TJ103	C 10KOHM. J.1/4W
R1226	ERDS2TJ103	C 10KOHM. J.1/4W
R1227	ERD25TJ101	C 100OHM. J.1/4W
R1229	ERDS2TJ101	C 100OHM. J.1/4W
R1230	ERDS2TJ101	C 100OHM. J.1/4W
R1233	ERDS2TJ102	C 1KOHM. J.1/4W
R1234	ERDS2TJ101	C 100OHM. J.1/4W
R1235	ERDS2TJ101	C 100OHM. J.1/4W
R1238	ERDS2TJ103	C 10KOHM. J.1/4W
R1239	ERDS2TJ333	C 33KOHM. J.1/4W
R1240	ERD25TJ101	C 100OHM. J.1/4W
R1241	ERDS2TJ102	C 1KOHM. J.1/4W
R1242	ERDS2TJ103	C 10KOHM. J.1/4W
R1244	ERD25TJ223	C 22KOHM. J.1/4W

Ref.No.	Part No.	Description
R1245	ERDS2TJ103	C 10KOHM, J,1/4W
R1249	ERD25TJ102	C 1KOHM, J,1/4W
R1250	ERDS2TJ221	C 220OHM, J,1/4W
R1251	ERD25TJ102	C 1KOHM, J,1/4W
R1256	ERDS2TJ183	C 18KOHM, J,1/4W
R1257	ERDS2TJ472	C 4.7KOHM, J,1/4W
R1258	ERDS2TJ822	C 8.2KOHM, J,1/4W
R1259	ERD25TJ562	C 5.6KOHM, J,1/4W
R1261	ERD25TJ103	C 10KOHM, J,1/4W
R1262	ERDS2TJ123	C 12KOHM, J,1/4W
R1263	ERDS2TJ563	C 56KOHM, J,1/4W
R1264	ERD25TJ681	C 680OHM, J,1/4W
R1265	ER0S2CKF3010	M 301OHM, F,1/4W
R1266	ERDS2TJ222	C 2.2KOHM, J,1/4W
R1272	ERDS2TJ101	C 100OHM, J,1/4W
R1273	ERDS2TJ101	C 100OHM, J,1/4W
R1274	ERDS2TJ101	C 100OHM, J,1/4W
R1275	ERDS2TJ101	C 100OHM, J,1/4W
R1276	ERDS2TJ103	C 10KOHM, J,1/4W
R1279	ER0S2CKF7500	M 750OHM, F,1/4W
R1282	ERDS2TJ221	C 220OHM, J,1/4W
R1287	ERDS2TJ103	C 10KOHM, J,1/4W
R1296	ERD25TJ221	C 220OHM, J,1/4W
R1297	ERDS2TJ101	C 100OHM, J,1/4W
R1298	ERDS2TJ224	C 220KOHM, J,1/4W
R2501	ERDS2TJ102	C 1KOHM, J,1/4W
R3100	ERDS2TJ750	C 75OHM, J,1/4W
R3107	ERDS2TJ680	C 68OHM, J,1/4W
R3110	ERDS1TJ101	C 100OHM, J,1/2W
R3111	ERDS2TJ104	C 100KOHM, J,1/4W
R3113	ERDS2TJ153	C 15KOHM, J,1/4W
R3114	ERDS2TJ472	C 4.7KOHM, J,1/4W
R3117	ERDS2TJ471	C 470OHM, J,1/4W
R3120	ERDS2TJ103	C 10KOHM, J,1/4W
R3123	ERDS2TJ393	C 39KOHM, J,1/4W
R3127	ERDS2TJ221	C 220OHM, J,1/4W
R3128	ERDS2TJ221	C 220OHM, J,1/4W
R3129	ERDS2TJ273	C 27KOHM, J,1/4W
R3309	ERDS2TJ102	C 1KOHM, J,1/4W
	CAPACITORS	
C012	ECKF1H103ZF	C 0.01UF, Z, 50V
C013	ECEA1HU010	E 1UF, 50V
C014	ECKF1H103ZF	C 0.01UF, Z, 50V
C016	ECEA1HU3R3	E 3.3UF, 50V
C017	ECKF1H103ZF	C 0.01UF, Z, 50V
C018	ECEA1CU101	E 100UF, 16V
C019	ECKF1H103ZF	C 0.01UF, Z, 50V
C022	ECEA1HU330	E 33UF, 50V
C101	ECKF1H103ZF	C 0.01UF, Z, 50V
C102	ECKF1H103ZF	C 0.01UF, Z, 50V
C103	ECKF1H103ZF	C 0.01UF, Z, 50V
C104	ECKF1H103ZF	C 0.01UF, Z, 50V
C121	ECEA1HU010	E 1UF, 50V
C122	ECEA1HU010	E 1UF, 50V
C123	ECEA1CU100	E 10UF, 16V
C150	ECEA1HFSR47	E 0.47UF, 50V

Ref.No.	Part No.	Description
C151	ECKF1H103ZF	C 0.01UF, Z, 50V
C152	ECEA1CU100	E 10UF, 16V
C153	ECEA1HUR47	E 0.47UF, 50V
C154	ECKF1H122KB	C 1200PF, K, 50V
C155	ECEA1HU470	E 47UF, 50V
C217	ECEA1CN330S	E 33UF, 16V
C220	ECKF1H821KB	C 820PF, K, 50V
C221	ECEA1HU4R7	E 4.7UF, 50V
C222	ECEA1CU100	E 10UF, 16V
C223	ECKF1H103ZF	C 0.01UF, Z, 50V
C225	ECCF1H820JC	C 82PF, J, 50V
C226	ECKF1H103ZF	C 0.01UF, Z, 50V
C242	ECCF1H180J	C 18PF, J, 50V
C251	ECA1CM471G	E 470UF, 16V
C252	ECQB1H153JF	P 0.015UF, J, 50V
C253	ECEA1HU2R2	E 2.2UF, 50V
C254	ECEA1EU101	E 100UF, 25V
C255	ECEA1CU330	E 33UF, 16V
C257	ECQV1H154JZ	P 0.15UF, J, 50V
C258	ECA1EM471G	E 470UF, 25V
C259	ECA1EM471G	E 470UF, 25V
C261	ECQV1H104JZ	P 0.1UF, J, 50V
C263	ECEA1CU220	E 22UF, 16V
C265	ECEA1HU010	E 1UF, 50V
C275	ECEA1HU470	E 47UF, 50V
C350	ECKF1H152KB	C 1500PF, K, 50V
C351	ECCF1H151J	C 150PF, J, 50V
C352	ECCF1H151J	C 150PF, J, 50V
C353	ECCF1H151J	C 150PF, J, 50V
C354	ECKD3D821KBN	C 820PF, K, 2KV
C356	ECKD2H103PU	C 0.01UF, P,500V
C412	ECEA1HFS010	E 1UF, 50V
C415	ECEA1CU221	E 220UF, 16V
C416	ECA1VM102G	E 1000UF, 35V
C417	ECEA1HFS2R2	E 2.2UF, 50V MTV
C418	ECQB1H103KF	P 0.01UF, K, 50V
C421	ECEA1HUR22	E 0.22UF, 50V
C452	ECEA1AU330	E 33UF, 10V
C455	ECCD2H100D	C 10PF, D,500V
C456	ECEA1VU101	E 100UF, 35V
C457	ECA1VM471G	E 470UF, 35V
C460	ECQE1104KF	P 0.1UF, K,100V
C461	ECQB1473KF3	P 0.047UF, K,100V MTV
C504	ECCF1H680JC	C 68PF, J, 50V
C511	ECWH12H562JS	P 5600PF,J,1.2KV
C512	ECKD3D561JBP	C 560PF, J, 2KV MTV
C513	ECKD3D271JBP	C 270PF, J, 2KV MTV
C514	ECKD2H471KB2	C 470PF, K,500V
C515	ECKD3D391JBP	C 390PF, J, 2KV MTV
C516	ECQM4472JZ	P 4700PF, J,400V MTV
C519	ECEA2CNR47S	E 0.47UF, 160V
C520	ECEA2EU100	E 10UF, 250V
C521	ECKD2H821KB2	C 820PF, K,500V
C522	ECQF2H394JSA	P 0.39UF, J,200V MTV
C523	ECEA1VU101	E 100UF, 35V
C524	ECQM4682JZ	P 6800PF, J,400V MTV
C525	ECKD2H332KB2	C 3300PF, K,500V

Ref.No.	Part No.	Description
C526	ECEA1JU100	E 10UF. 63V
C527	ECKD2H332KB2	C 3300PF. K.500V
C528	ECKD2H101KB2	C 100PF. K.500V
C532	ECEA1HU010	E 1UF. 50V
C535	ECKD2H821KB2	C 820PF. K.500V
C539	ECKD3D102JBP	C 1000PF. J. 2KV MTV
C551	ECEA1HU100	E 10UF. 50V
C552	ECQB1H223JF	P 0.022UF. J. 50V
C553	ECQB1H183JF	P 0.018UF. J. 50V MTV
C554	ECEA1CU100	E 10UF. 16V
C555	ECKF1H103ZF	C 0.01UF. Z. 50V
C601	ECQB1H223JF	P 0.022UF. J. 50V
C602	ECQB1H223JF	P 0.022UF. J. 50V
C603	ECQB1H223JF	P 0.022UF. J. 50V
C604	ECEA1HUR47	E 0.47UF. 50V
C605	ECKF1H103ZF	C 0.01UF. Z. 50V
C606	ECQB1H223JF	P 0.022UF. J. 50V
C607	ECEA1HN2R2S	E 2.2UF. 50V
C608	ECCF1H120JU	C 12PF. J. 50V
C609	ECCF1H150JU	C 15PF. J. 50V
C610	ECEA1HU010	E 1UF. 50V
C611	ECQB1H223JF	P 0.022UF. J. 50V
C612	ECA0JM102G	E 1000UF. 6.3V
C613	ECKF1H103ZF	C 0.01UF. Z. 50V
C614	ECEA1CU102	E 1000UF. 16V
C615	ECEA1HU4R7	E 4.7UF. 50V
C616	ECQB1H223JF	P 0.022UF. J. 50V
C617	ECEA1CU101	E 100UF. 16V
C618	ECCF1H330J	C 33PF. J. 50V
C619	ECCF1H330J	C 33PF. J. 50V
C620	ECCF1H330J	C 33PF. J. 50V
C630	ECCF1H820J	C 82PF. J. 50V
C632	ECKF1H391KB	C 390PF. K. 50V
C639	ECEA1CU100	E 10UF. 16V
C640	ECEA1HU2R2	E 2.2UF. 50V
C641	ECQV1H334JZ	P 0.33UF. J. 50V
C642	ECKF1H102KB	C 1000PF. K. 50V
C643	ECQB1H223JF	P 0.022UF. J. 50V
C644	ECKF1H561KB	C 560PF. K. 50V
C646	ECKF1H101KB	C 100PF. K. 50V
C647	ECEA1CU470	E 47UF. 16V
C650	ECCF1H221JU	C 220PF. J. 50V
C651	ECKF1H103ZF	C 0.01UF. Z. 50V
C655	ECEA1HU100	E 10UF. 50V
C656	ECQB1H223JF	P 0.022UF. J. 50V
C657	ECEA1CU330	E 33UF. 16V
C658	ECQB1H223JF	P 0.022UF. J. 50V
C659	ECEA1HU0R1	E 0.1UF. 50V
C660	ECEA1HU0R1	E 0.1UF. 50V
C661	ECKF1H102KB	C 1000PF. K. 50V
C662	ECKF1H102KB	C 1000PF. K. 50V
C670	ECEA1CU470	E 47UF. 16V
C671	ECQB1H223JF	P 0.022UF. J. 50V
C672	ECQV1H104JZ	P 0.1UF. J. 50V
C673	ECQV1H224JZ	P 0.22UF. J. 50V
C674	ECCF1H330J	C 33PF. J. 50V

Ref.No.	Part No.	Description
C796	ECQE4563KF	P 0.056UF. K.400V
C801	ECQU2A823MN	P 0.082UF. M.250V ⚠
C802	ECQU2A683MN	P 0.068UF. M.250V ⚠
C805	ECKDAE472ZE	C 4700PF. Z.
C806	ECKDAE472ZE	C 4700PF. Z.
C807	ECKDAE472ZE	C 4700PF. Z.
C808	ECKDAE472ZE	C 4700PF. Z. ⚠
C811	ECKDNS471MBJ	C 470PF. M.
C815	ECOS2FP221BB	E 220UF. 315V
C816	EEUFA1V152L	ELECTROLYTIC CAPA
C817	ECOS2DG221E	E 220UF. 200V
C818	ECEA1EU221	E 220UF. 25V
C819	ECA1VM102G	E 1000UF. 35V
C820	ECKD3D152KBN	C 1500PF. K. 2KV
C821	ECKD3A272KBP	C 2700PF. K. 1KV MTV
C823	ECKD2H122KB2	C 1200PF. K.500V
C824	ECKD2H122KB2	C 1200PF. K.500V
C825	ECKCNS152MEJ	C 1500PF. M. MTV ⚠
C826	ECKD2H472KB2	C 4700PF. K.500V
C827	ECKD3D122KBP	C 1200PF. K. 2KV MTV
C828	ECEA1EU221	E 220UF. 25V
C829	ECOS2GP331CB	E 330UF. 400V
C830	ECKD2H471KB2	C 470PF. K.500V
C832	ECA1JFZ220	ELECTROLYTIC CAPA
C835	ECEA1CU102	E 1000UF. 16V
C836	ECEA1HU220	E 22UF. 50V
C837	ECKD2H122KB2	C 1200PF. K.500V
C838	ECKD2H561KB2	C 560PF. K.500V
C840	ECQV1H224JZ	P 0.22UF. J. 50V
C841	ECKD3A272KBP	C 2700PF. K. 1KV MTV
C843	ECQV1H105JZ	P 1UF. J. 50V
C844	ECKD3A102KBP	C 1000PF. K. 1 KV MTV
C846	ECA0JM102G	E 1000UF. 6.3V
C848	ECEA1HU4R7	E 4.7UF. 50V
C853	ECKF1H103ZF	C 0.01UF. Z. 50V
C854	ECEA0JU101	E 100UF. 6.3V
C856	ECEA1CU101	E 100UF. 16V
C857	ECA1AM102G	E 1000UF. 10V
C858	ECEA0JU101	E 100UF. 6.3V
C859	ECQB1H103JF	P 0.01UF. 50V
C861	ECEA1CU101	E 100UF. 16V
C862	ECKF1H103ZF	C 0.01UF. Z. 50V
C863	ECKF1H103ZF	C 0.01UF. Z. 50V
C864	ECQB1H473JF	P 0.047UF. J. 50V
C873	ECKF1H103ZF	C 0.01UF. Z. 50V
C880	ECOS2GP680BB	E 68UF. 400V
C881	ECQE6104KF	P 0.1UF. K.630V
C883	ECQE4823KF	P 0.082UF. K.400V
C884	ECEA1CGE101	E 100UF. 16V
C885	ECEA1CGE101	E 100UF. 16V
C888	ECEA1EGE471	E 470UF. 25V
C899	ECKD3D151JBN	C 150PF. 2KV
C1118	ECKF1H103ZF	C 0.01UF. Z. 50V
C1119	ECEA1CU470	E 47UF. 16V
C1137	ECQB1H223JF	P 0.022UF. J. 50V

Ref.No.	Part No.	Description
C1189	ECKF1H471KB	C 470PF. K. 50V
C1190	ECKF1H471KB	C 470PF. K. 50V
C1191	ECKF1H103ZF	C 0.01UF. Z. 50V
C1206	ECEA0JU471	E 470UF. 6.3V
C1207	ECKF1H103ZF	C 0.01UF. Z. 50V
C1209	ECKF1H101KB	C 100PF. K. 50V
C1215	ECEA0JU101	E 100UF. 6.3V
C1215	ECKF1H101KB	C 100PF. K. 50V
C1216	ECKF1H101KB	C 100PF. K. 50V
C1217	ECQV1H104JZ	P 0.1UF. J. 50V
C1218	ECKF1H331KB	C 330PF. K. 50V
C1219	ECA1CM471G	E 470UF. 16V
C1221	ECQV1H104JZ	P 0.1UF. J. 50V
C1224	ECEA1HU4R7	E 4.7UF. 50V
C1225	ECQV1H104JZ	P 0.1UF. J. 50V
C1231	ECCF1H101JC	C 100PF. J. 50V
C1232	ECCF1H220JC	C 22PF. J. 50V
C1234	ECKF1H103ZF	C 0.01UF. Z. 50V
C1235	ECCF1H101JC	C 100PF. J. 50V
C1236	ECKF1H103ZF	C 0.01UF. Z. 50V
C1237	ECKF1H103ZF	C 0.01UF. Z. 50V
C1241	ECKF1H471KB	C 470PF. K. 50V
C1244	ECEA1HU2R2	E 2.2UF. 50V
C1245	ECEA1HU2R2	E 2.2UF. 50V
C1246	ECKF1H472KB	C 4700PF. K. 50V
C1247	ECCF1H181JC	C 180PF. J. 50V
C1265	ECEA0JU471	E 470UF. 6.3V
C1266	ECKF1H103ZF	C 0.01UF. Z. 50V
C1298	ECCF1H120JC	C 12PF. J. 50V
C1299	ECRLA030E53R	TRIMMER MTV
C2501	ECEA1HU010	E 1UF. 50V
C2504	ECEA1CU100	E 10UF. 16V
C2505	ECQV1H104JZ	P 0.1UF. J. 50V
C2506	ECEA1CU100	E 10UF. 16V
C2509	ECEA1HN010S	E 1UF. 50V
C3102	ECEA1CU470	E 47UF. 16V
C3103	ECEA1HU100	E 10UF. 50V
	COILS	
L011	EXCELSA35T	BEADS CORE MTV
L012	TLTACC8R2K	PEAKING COIL 8.2U
L101	TLTACC4R7K	PEAKING COIL 4.7U
L102	EIV7EN180B	COIL
L110	EQV7EN202Q	COIL
L150	TLTACC100K	PEAKING COIL 10U
L151	EXCELDR25V	CORE
L221	TLTACC100K	PEAKING COIL 10U
L361	EXCELSA35T	BEADS CORE MTV
L501	EXCELSA35T	BEADS CORE MTV
L505	EXCELSA35T	BEADS CORE MTV
L511	TSK1002	COIL
L512	TSK1002	COIL
L517	EXCELSA35T	BEADS CORE MTV
L610	TLTACC100K	PEAKING COIL 10U
L611	TLTACC100K	PEAKING COIL 10U
L612	TLTACC100K	PEAKING COIL 10U
L613	TLTACC100K	PEAKING COIL 10U

Ref.No.	Part No.	Description
L614	EQL7EN019P	COIL
L615	TLTACC150K	PEAKUNG COIL 15U
L616	TLUABTA100	PEAKING COIL MTV
L617	EXCELDR25V	CORE
L670	TLTACC220K	PEAKING COIL 22U
L801	ELF18D850H	LINE FILTER MTV
L802	ELF18D850H	LINE FILTER MTV
L803	TSC925-4	CHOKE COIL
L804	EXCELSA35T	BEADS CORE MTV
L805	EXCELSA35T	BEADS CORE MTV
L806	EXCELSA35T	BEADS CORE MTV
L807	EXCELSA35T	BEADS CORE MTV
L808	EXCELSA35T	BEADS CORE MTV
L809	EXCELSA35T	BEADS CORE MTV
L810	EXCELSA35T	BEADS CORE MTV
L812	EXCELSA35T	BEADS CORE MTV
L818	ELEIE101KA	PEAKING COIL
L819	EXCELSA35T	BEADS CORE MTV
L820	EXCELSA35T	BEADS CORE MTV
L821	EXCELSA35T	BEADS CORE MTV
L823	EXCELSA35T	BEADS CORE MTV
L851	TLTACC100K	PEAKING COIL 10U
L853	ELEIE100KA	PEAKING COIL
L857	TLP15154Q	COIL MTV
L860	TLTACC101K	PEAKING COIL 100U
L876	TSC925-4	CHOKE COIL
L877	TSC925-4	CHOKE COIL
L878	TLTACC100K	PEAKING COIL 10U
L1201	TLTACC100K	PEAKING COIL 10U
L1202	TLTACC100K	PEAKING COIL 10U
L1203	TLTACC100K	PEAKING COIL 10U
L1212	TSC937	CHOKE COIL
L1215	TLTACC331K	PEAKING COIL
L1221	EXCELSA35T	BEADS CORE MTV
L1247	TLTACC100K	PEAKING COIL 10U
L1248	TLTACC100K	PEAKING COIL 10U
	TRANSFORMERS	
T501	TLF15626F	FLYBACK TRANSFORMER MTV ⚠
T502	ETH19Y70AY	H DRIVE TRANS ⚠
T801	ETS39AF276NC	POWER TRANS
T875	ETE27K28AY	TRANSFORMER MTV ⚠
	DIODES	
D011	MA4150H	ZENER DIODE
D012	MA4150H	ZENER DIODE
D251	MA165	DIODE
D413	MA165	DIODE
D414	MA29WA	DIODE
D415	MA29WA	DIODE
D449	MA4360M	DIODE
D452	ERA15-01	DIODE
D508	TVSEU2	DIODE
D509	TVSEU2	DIODE
D514	TVSEU2	DIODE
D516	TVSRU2AM	DIODE
D517	ERB06-15	DIODE

Ref.No.	Part No.	Description	
D528	MA4360L	DIODE	
D563	MA167	DIODE	
D601	MA165	DIODE	
D641	MA4051L	DIODE	
D642	MA700	DIODE	
D670	MA4082M	DIODE	
D801	TRPW5B0N120D	POSISTOR	MTV
D803	TF361MA	THYRISTOR	MTV
D804	MA4160M	DIODE	
D807	FMLG16S	DIODE	
D808	RU30A	DIODE	
D809	FML-G12S	DIODE	
D810	MA4051M	DIODE	
D811	RU3YX-M	DIODE	
D812	MA165	DIODE	
D813	TLP721FD4GR	PHOTO COUPLER	
D814	TLP721FD4GR	PHOTO COUPLER	
D815	TVSRU3N	DIODE	
D816	FMLG16S	DIODE	
D817	D4SB80Z	DIODE	
D822	MA182	DIODE	
D824	MA4062H	ZENER DIODE	
D825	TVSEU2	DIODE	
D826	TVSEU2	DIODE	
D827	TVSEU2	DIODE	
D828	TVSES1C	DIODE	
D829	MA182	DIODE	
D831	TVSEU2	DIODE	
D833	TVSEU2	DIODE	
D842	ERA15-04	DIODE	
D845	TVSEU2	DIODE	
D846	TVSEU2	DIODE	
D847	MA165	DIODE	
D848	MA165	DIODE	
D860	MA150	DIODE	
D861	MA165	DIODE	
D864	MA165	DIODE	
D866	MA165	DIODE	
D867	MA165	DIODE	
D868	ERA15-01	DIODE	
D869	ERA15-01	DIODE	
D875	ERA15-01	DIODE	
D875	TVSS1WBA80Z	RECTIFIER	MTV
D876	ERA15-01	DIODE	
D876	MA4056M	DIODE	
D877	MA2160	DIODE	
D879	EG01C	DIODE	MTV
D880	MA171	DIODE	
D883	RL3Z	DIODE	
D887	TVSEH1	DIODE	
D1175	MA165	DIODE	
D1203	LN170WP38	LED	
D1204	LN170WP38	LED	
D1206	LN41YCPHL	LED (AMBER)	
D1207	MA165	DIODE	
D1208	MA165	DIODE	

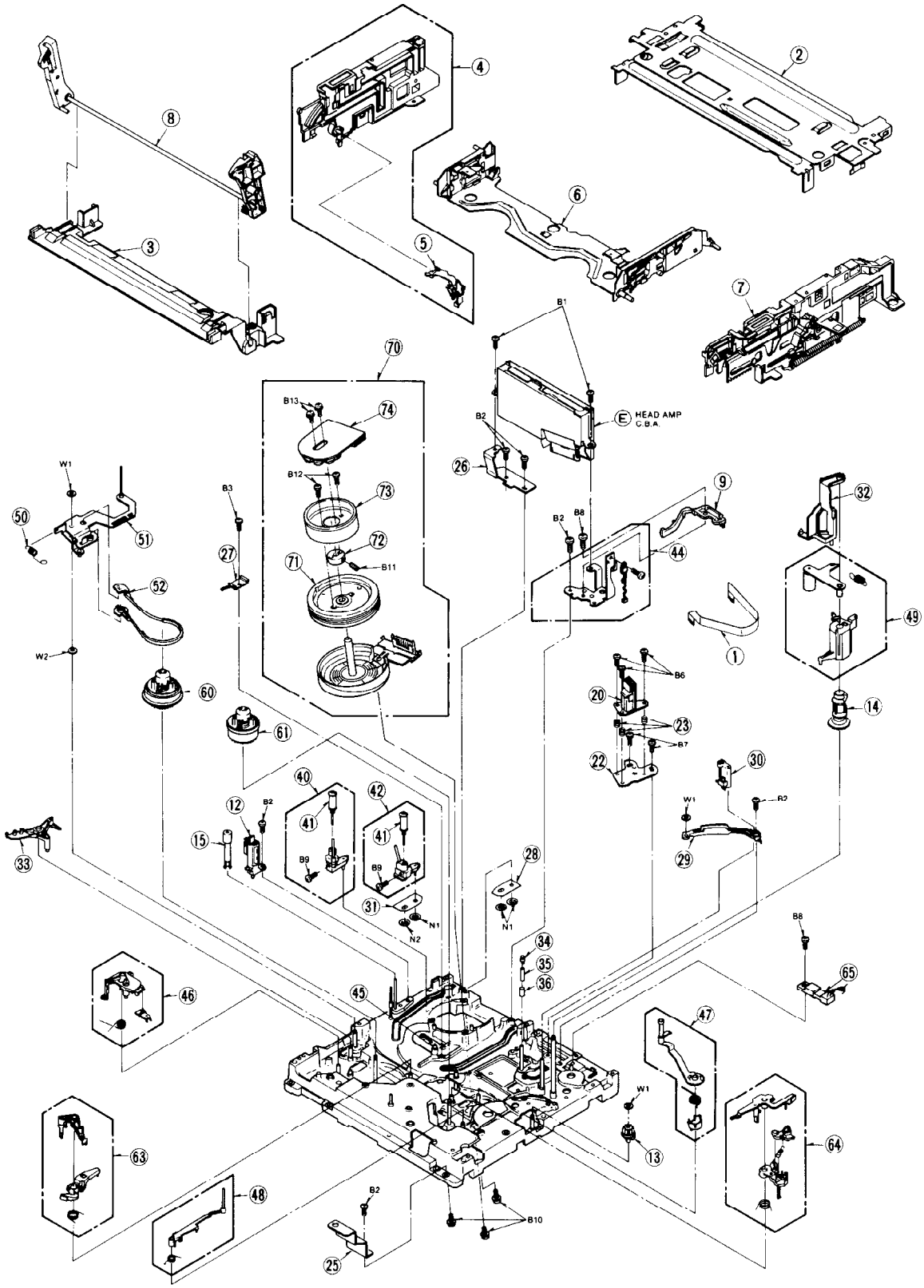
Ref.No.	Part No.	Description	
D1211	MA4082	DIODE	
D1220	MA4068M	DIODE	
D3130	MA4120	DIODE	
	INTEGRATED CIRCUITS		
IC251	AN5265	LINEAR IC	
IC451	LA7837	LINEAR IC	MTV
IC601	AN5192K-A	LINEAR IC	MTV
IC602	TDA4665	LINEAR IC	
IC603	TDA8395P	LINEAR IC	MTV
IC802	STR-S6707	IC	MTV
IC803	SE140N	IC	
IC805	AN7805	LINEAR IC	
IC806	AN78M09	LINEAR IC	
IC807	AN78L12	LINEAR IC	
IC851	AN78M05	LINEAR IC	
IC855	PQ12RF1A	LINEAR IC	
IC875	STR-0006	LINEAR IC	
IC1202	MN1874033T2J	MOS IC (8BIT MICRO)	
IC1203	MN1280S	MOS IC	
IC1205	24C04AIPA21	MOS IC (EEPROM 4KBIIT)	
IC2502	LA7222-TV	LINEAR IC	
	TRANSISTORS		
Q101	2SC2188	TRANSISTOR	
Q150	2SC1685-R	TRANSISTOR	
Q151	2SC1685-R	TRANSISTOR	
Q223	2SC1685-R	TRANSISTOR	
Q224	2SC1685-R	TRANSISTOR	
Q231	2SA564A-R	TRANSISTOR	
Q351	2SC2258	TRANSISTOR	
Q352	2SC2258	TRANSISTOR	
Q353	2SC2258	TRANSISTOR	
Q451	2SA564A-R	TRANSISTOR	
Q501	2SD1541	TRANSISTOR	
Q503	2SA564A-R	TRANSISTOR	
Q512	2SC3941H	TRANSISTOR	MTV
Q675	2SC1685-R	TRANSISTOR	
Q676	2SC1685-R	TRANSISTOR	
Q804	2SD1266A	TRANSISTOR	
Q844	2SC1685-R	TRANSISTOR	
Q845	2SC1685-R	TRANSISTOR	
Q853	2SD1010	TRANSISTOR	
Q856	2SC1685-R	TRANSISTOR	
Q858	2SC1685-R	TRANSISTOR	
Q860	2SC1685-R	TRANSISTOR	
Q861	2SC1685-R	TRANSISTOR	
Q862	2SC1685-R	TRANSISTOR	
Q1136	2SC1685-R	TRANSISTOR	
Q1166	2SA564A-R	TRANSISTOR	
Q1167	2SA564A-R	TRANSISTOR	
Q1168	2SA564A-R	TRANSISTOR	
Q1169	2SC1685-R	TRANSISTOR	
Q1170	2SA564A-R	TRANSISTOR	
Q1171	2SC1685-R	TRANSISTOR	
Q1205	2SC1685-R	TRANSISTOR	
Q1206	2SC1685-R	TRANSISTOR	
Q3106	2SC1318A	TRANSISTOR	

Ref.No.	Part No.	Description
Q3107	2SC1685-R	TRANSISTOR
Q3108	2SA564A-R	TRANSISTOR
	OTHERS	
	OTHERS	
E.16	TJS3A8010	3P CONNECTOR
E.17	TJS3A8010	3P CONNECTOR
E.18	TJS3A9240	6P CONNECTOR
E.23	TJS118650	PHONO PIN
E.24	TJS118650	PHONO PIN
E.26	TJS118650	9P CONNECTOR
E.27	TJS118640	PHONO PIN
E.31	TJS110600	3P CONNECTOR
E.32	TJS118620	5P CONNECTOR
E.33	TJS118610	4P CONNECTOR
F801	XBA2C31TR0	FUSE 250V 3.15A ⚠
JK001	TJS1A5081	CRT SOCKET
JK1201	TJS8E001	SOCKET
JK3101	TJB18637	AV TERMINAL
M.1	TJS1A8150	CONNECTOR
M.2	TJS1A8130	PHONO PIN
P.3	TJS5A9290	6P CONNECTOR
RL801	TSE1885-1	RELAY
RL803	TSE1893	RELAY
RM001	RPM-637CBRL	REMOTE CONTROL R
S401	EVQRAAL10	SWITCH
S1201	EVQQS405K	SWITCH
S1202	EVQQS405K	SWITCH
S1203	EVQQS405K	SWITCH
S1204	EVQQS405K	SWITCH
S1205	EVQQS405K	SWITCH
S1206	EVQQS405K	SWITCH
S1207	EVQQS405K	SWITCH
S1212	EVQQS405K	SWITCH
S1213	EVQQS405K	SWITCH
S1214	EVQQS405K	SWITCH
S1215	EVQQS405K	SWITCH
S1216	EVQQS405K	SWITCH
S1217	EVQQS405K	SWITCH
S1220	ESB64605	SWITCH
TNR1	TNV95901F1A	TUNER
V001	VL2330/1VC	BATTERY
X101	TFCH38MVK05	SAW FILTER ⚠
X150	EFCS5R5MW3	CERAMIC TRAP
X151	EFCS6R5MW5	CERAMIC FILTER
X221	EFCS6R5MS3M1	CERAMIC FILTER
X222	EFCS5R5MS5	CERAMIC FILTER
X601	TS116M20	CRYSTAL OSC MTV
X602	TSS2143-M	CRYSTAL
X640	TAFCSB500F48	CRYSTAL OSC
X1201	EF0GC6004A4	CERAMIC FILTER
X1299	TSS1013-D	CRYSTAL 32.768KHZ
Y.32	TJS118620	5P CONNECTOR
Y.33	TJS118610	4P CONNECTOR

Parts Location of VCR Block

Mechanical Replacement Parts List

❶ Chassis Section (1)



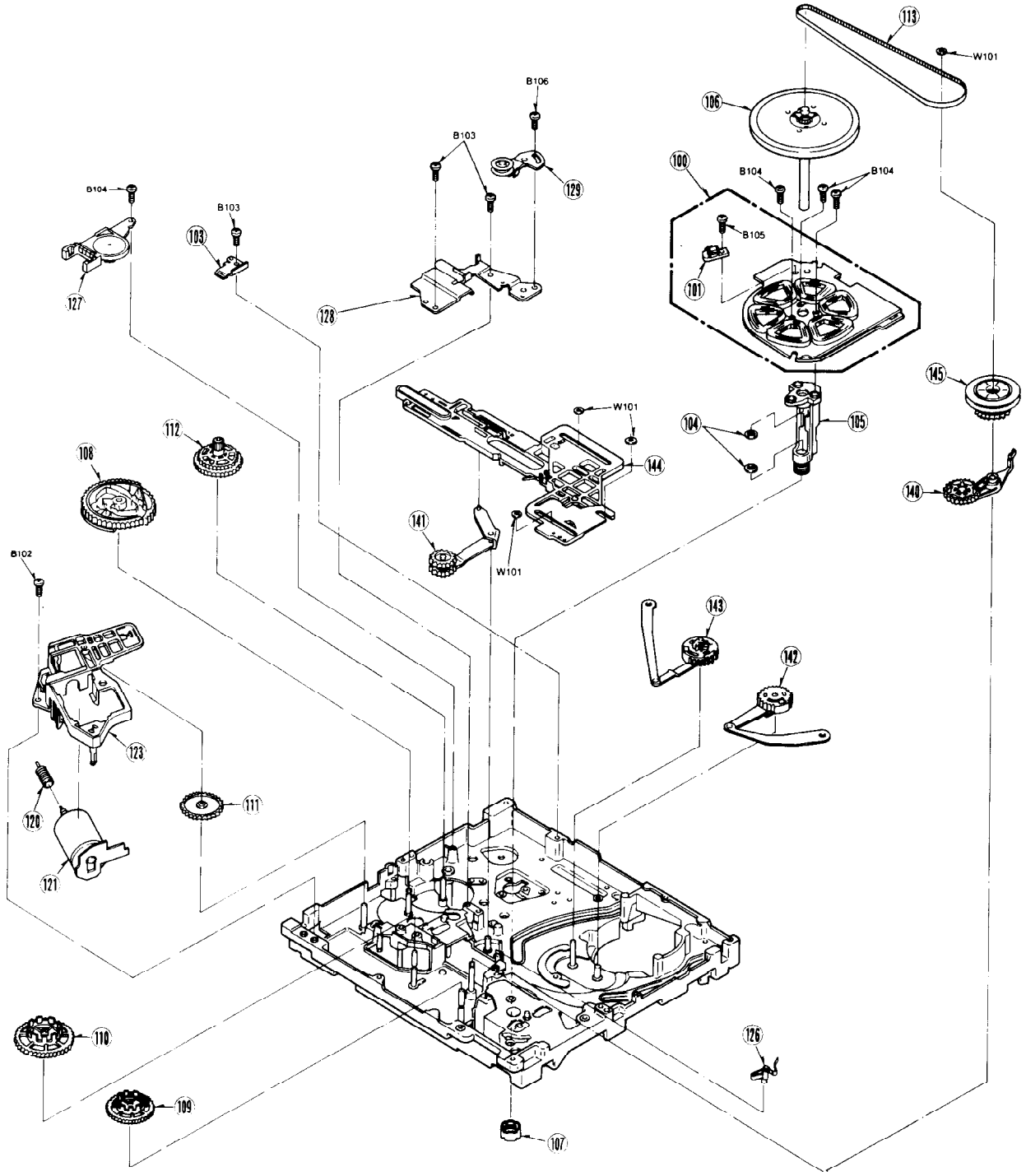
❶ Chassis Section (1)

Note : The parts on this page are supplied from V.R.D (Video Recorder Division).

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
1(1)		VWJ0743	FLEXIBLE CABLE (6P)	1	P4002-A/C HEAD
2(1)		VMA8644	TOP PLATE	1	
3(1)		VMA8787	CASSETTE GUIDE	1	
4(1)		VXA4660	SIDE PLATE (L) UNIT	1	
5(1)		VML2902	OPENER LEVER	1	
6(1)		VXA4661	CASSETTE HOLDER PLATE UNIT	1	
7(1)		VXA4806	SIDE PLATE (R) UNIT	1	
8(1)		VXP1339	MAIN SHAFT UNIT	1	
9(1)		VML2900	ARM UNIT	1	
12(1)		VBS0052	FE HEAD	1	
13(1)		VDG0871	CARRIAGE CONNECTION GEAR	1	
14(1)		VDG0886	PINCH CAM GEAR	1	
15(1)		VXP1402	IMPEDANCE ROLLER UNIT	1	
20(1)		VED0217	A/C HEAD (1) UNIT	1	
22(1)		VMA8624	A/C HEAD BASE	1	
23(1)		VMB2515	A/C HEAD SPRING	3	
25(1)		VMA8761	MOUNT ANGLE	1	
26(1)		VMA9158	HEAD AMP MOUNT ANGLE (L)	1	
27(1)		VMC0917	EARTH SPRING	1	
28(1)		VMA8874	INCLIND BASE HOLDER (S)	1	
29(1)		VMD2078	P5 STOPPER BASE	1	
30(1)		VXA4927	P5 POST STOPPER	1	
31(1)		VMA8873	INCLIND BASE HOLDER (T)	1	
32(1)		VMD2101	OPENER PIECE	1	
33(1)		VML2776	TENSION SPRING ARM	1	
34(1)		VMX1544	P4 UPPER LIMITER	1	
35(1)		VMX2175	P4 SLEEVE	1	
36(1)		VMX2176	P4 LOWER LIMITER	1	
40(1)		VXA5245KIT	INCLINED BASE (S) UNIT	1	OR VXA4982KIT
41(1)		VXP1415	ROLLER POST	2	
42(1)		VXA5247KIT	INCLINED BASE (T) UNIT	1	OR VXA4984KIT
44(1)		VXA5170	HEAD AMP MOUNT ANGLE (R) U.	1	
45(1)		VMS5383	CASSETTE POSITION FIXTURE	1	
46(1)		VXL2310	REVIEW ARM UNIT	1	
47(1)		VXL2306	P5 ARM UNIT	1	
48(1)		VXL2394	TAKE UP TENSION REGULATOR	1	
			ARM UNIT		
49(1)		VXL2246	PINCH ARM UNIT	1	
50(1)		VMB2434	TENSION SPRING	1	
51(1)		VXL2309	TENSION ARM (1) UNIT	1	
52(1)		VXZ0310	TENSION BAND UNIT	1	
60(1)		VXR0221	SUPPLY REEL TABLE UNIT	1	
61(1)		VXR0222	TAKE UP REEL TABLE UNIT	1	
63(1)		VXZ0312	SUPPLY BRAKE ARM UNIT	1	
64(1)		VXZ0313	TAKE UP BRAKE ARM UNIT	1	
65(1)		2SB941PSW	POWER TRANSISTOR	1	
70(1)		VEG1162	CYLINDER UNIT	1	<!>
71(1)		VEH0678	UPPER CYLINDER UNIT	1	
72(1)		VDB1256	CYLINDER RETAINER	1	
73(1)		VXP1500	CYLINDER ROTOR UNIT	1	
74(1)		VEK7236	CYLINDER STATOR UNIT	1	<!>
B1(1)		VHD0773	SCREW	2	
B2(1)		XTV26+6F	SCREW	6	
B3(1)		XTV26+4F	SCREW	1	
B6(1)		VHD0762	SCREW	3	
B7(1)		XTV26+6FZ	SCREW	2	
B8(1)		XTV26+8F	SCREW	2	
B9(1)		XQN2+AJ4	SCREW	2	
B10(1)		VHD0342	SCREW	3	
B11(1)		XXE3W4FP	SCREW	1	
B12(1)		VHD0843	SCREW	2	
B13(1)		VHD0844	SCREW	2	
N1(1)		VHN0192	NUT	3	
N2(1)		VHN0193	NUT	1	
W1(1)		VMX2208	WASHER	3	
W2(1)		XWGV26D5G	WASHER	1	

Chassis Section (2)



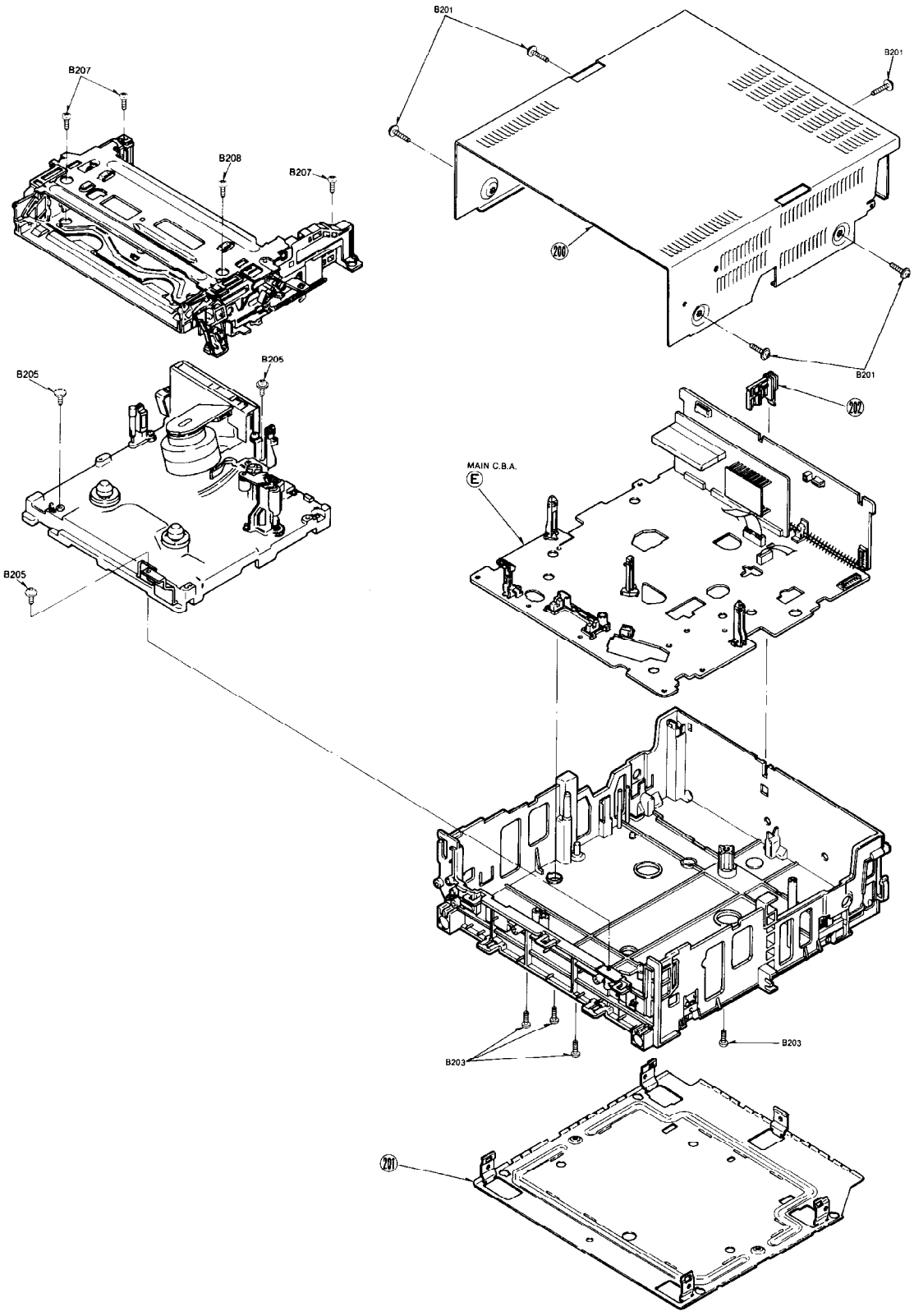
❷ Chassis Section (2)

Note : The parts on this page are supplied from V.R.D (Video Recorder Division).

Note: 1.* Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of those components, use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
100(2)		VEK5927	CAPSTAN STATOR UNIT	1	
101(2)		VBK0061	FG HEAD	1	
103(2)		VMA8930	ROTOR STOPPER	1	
104(2)		VMX1927	OIL SEAL	2	
105(2)		VXD0140	HOUSING UNIT	1	
106(2)		VXP1519	CAPSTAN ROTOR UNIT	1	
107(2)		VXQ0297	THRUST SCREW UNIT	1	
108(2)		VDG0913	MAIN CAM GEAR	1	
109(2)		VDG0956	SUPPLY REEL GEAR	1	
110(2)		VDG0957	TAKE UP REEL GEAR	1	
111(2)		VDG0868	WORM WHEEL GEAR	1	
112(2)		VDG0885	SUB CAM GEAR	1	
113(2)		VDV0235	TIMING BELT	1	
120(2)		VDG0866	WORM GEAR	1	
121(2)		VEM0427	LOADING MOTOR (1) UNIT	1	
123(2)		VMD1942	MOTOR BRACKET	1	
126(2)		VML2725	IDLER CONTROL LEVER	1	
127(2)		VSS0365	MODE SW	1	
128(2)		VMA8965	SS BRAKE BASE	1	
129(2)		VXA4799	TENSION ROLLER UNIT	1	
140(2)		VXL2378	IDLER ARM UNIT	1	
141(2)		VXL2372	DIRECT LEVER UNIT	1	
142(2)		VXL2299	SUPPLY LOADING ARM UNIT	1	
143(2)		VXL2300	TAKE UP LOADING ARM UNIT	1	
144(2)		VXL2307	MAIN LEVER UNIT	1	
145(2)		VXP1409	CENTRE CLUTCH	1	
B102(2)		XTV26+8F	SCREW	1	
B103(2)		XTV26+6F	SCREW	3	
B104(2)		VHD0753	SCREW	4	
B105(2)		VHD0754	SCREW	1	
B106(2)		XSB26+4FZ	SCREW	1	
W101(2)		VMX2208	WASHER	4	

Casing Parts Section



❸ Casing Parts Section

Note : The parts on this page are supplied from V.R.D (Video Recorder Division).

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
200(3)		VGM1088	TOP PANEL	1	
201(3)		VKU0402	BOTTOM PLATE	1	
202(3)		VJF1116	LUM/CHR PACK HOLDER	1	
B201(3)		VHD0773	SCREW	5	
B203(3)		VHD0772	SCREW	4	
B205(3)		VHD0168	SCREW	3	
B207(3)		XTV26+8FR	SCREW	3	
B208(3)		XTV26+10F	SCREW	1	

Electrical Replacement Parts List

Note : The parts on this page are supplied from V.R.D (Video Recorder Division).

Note: 1. Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE : Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components, use only the same type.
3. Unless otherwise specified, All resistors are in OHMS , K=1,000 OHMS. All capacitors are in MICRO-FARADS(uf), P=uuF.
4. The P.C.Board units marked width'■'show below the main assembled parts.
5. The marking(RTL) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP06970B	MAIN C.B.A.	1	(RTL)
					INCLUDING THE
					LUMINANCE &
					CHROMINANCE PACK
					C.B.A.(VEP03975AB).
		VEP03975AC	LUMINANCE & CHROMINANCE	1	(RTL)
			PACK C.B.A.		INCLUDED IN MAIN
					C.B.A.(VEP06970A).
		VEP06970B	HEAD AMP C.B.A.	1	(RTL)
	■	VEP06970A	MAIN C.B.A.		(RTL)
C305		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C306,07		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	2	
C308		ECEA1EKN4R7	E.CAPACITOR 25V 4.7U	1	
C309		ECUM1H333KBN	C.CAPACITOR CH 50V 0.033U	1	
C310		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C311		ECEAOJK101	E.CAPACITOR 6.3V 100U	1	
C312		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C313,14		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C315		ECUM1H121JCN	C.CAPACITOR CH 50V 120P	1	
C319		ECEAOJK101	E.CAPACITOR 6.3V 100U	1	
C320		ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	
C805		ECEAOJK221	E.CAPACITOR 6.3V 220U	1	
C806		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C807		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C808		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C809		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C812		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C814		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C816		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C817		ERJ6GMZOR00	M.RESISTOR CH 1/10W 0	1	
C818		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C820-25		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	6	
C826		ECEAOJK101	E.CAPACITOR 6.3V 100U	1	
C827		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C838		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C839		ECUM1H100DCN	C.CAPACITOR CH 50V 10P	1	
C841		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C842		ECEAOJK101	E.CAPACITOR 6.3V 100U	1	
C845		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C846		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1002		ECEA1EKA470	E.CAPACITOR 25V 47U	1	
C1008		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1009		ECEAOJKA101	E.CAPACITOR 6.3V 100U	1	
C1010		ECEAOJKA470	E.CAPACITOR 6.3V 47U	1	
C1011		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C1012		ECEAOJKA221	E.CAPACITOR 6.3V 220U	1	
C1101		ECA1CM331	E.CAPACITOR 16V 330U	1	
C1103		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C1105		ECA1EM101	E.CAPACITOR 25V 100U	1	
C1107		ECA1AM471	E.CAPACITOR 10V 470U	1	
C1108		ECEAOJKA101	E.CAPACITOR 6.3V 100U	1	
C2001		ECAOJM471	E.CAPACITOR 6.3V 470	1	
C2002		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2003		ECUM1H392KBN	C.CAPACITOR CH 50V 3900P	1	
C2004		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C2005		ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C2006		ECQV1H683JM	P.CAPACITOR 50V 0.068U	1	
C2007		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C2008		ECUM1H472KBN	C.CAPACITOR CH 50V 4700P	1	
C2009		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C2010		ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C2011		ECEA1HKA4R7	E.CAPACITOR 50V 4.7U	1	
C2012		ECEAOJU101	E.CAPACITOR 6.3V 100U	1	
C2013		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2014		ECEA1CKA100	E.CAPACITOR 16V 10U	1	
C2015,16		ECEA1HKN3R3	E.CAPACITOR 50V 3.3U	2	
C2017		ECUM1H471JCN	C.CAPACITOR CH 50V 470P	1	
C2018		ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C2019		ECEA1CKA100	E.CAPACITOR 16V 10U	1	
C2020		ECEA1HKA3R3	E.CAPACITOR 50V 3.3U	1	
C2021		ECEA1AKA470	E.CAPACITOR 10V 47U	1	
C2022		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2023		ECEAOJKA221	E.CAPACITOR 6.3V 220U	1	
C2024		ECUM1H392KBN	C.CAPACITOR CH 50V 3900P	1	
C2025		ECUM1H223KBN	C.CAPACITOR CH 50V 0.022U	1	
C2026		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2027		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C2501		ECEAOJKA101	E.CAPACITOR 6.3V 100U	1	
C2502		ECQV1H104JM	P.CAPACITOR 50V 0.1U	1	
C2503-05		ECUM1H104KBM	C.CAPACITOR CH 50V 0.1U	3	
C2506		ECQV1H683JM	P.CAPACITOR 50V 0.068U	1	
C2507-09		ECEA1VKN4R7	E.CAPACITOR 35V 4.7U	3	
C2510		ECUM1H473ZFN	C.CAPACITOR CH 50V 0.047U	1	
C2511		ECEAOJKA101	E.CAPACITOR 6.3V 100U	1	
C2512		ECEA1HKAR47	E.CAPACITOR 50V 0.47U	1	
C2513		ECUM1H333KBN	C.CAPACITOR CH 50V 0.033U	1	
C2514-16		ECEA1HKA2R2	E.CAPACITOR 50V 2.2U	3	
C2517		ECEA1CKA101	E.CAPACITOR 16V 100U	1	
C2518		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2519		ECUM1H563ZFN	C.CAPACITOR CH 50V 0.056U	1	
C2520		ECUM1E104KBN	C.CAPACITOR CH 25V 0.1U	1	
C2521,22		ECUM1H333KBN	C.CAPACITOR CH 50V 0.033U	2	
C2523		ECAOJM221	E.CAPACITOR 6.3V 220U	1	
C2524		ECQV1H563JM	P.CAPACITOR 50V 0.056U	1	
C2525		ECEA1EKA470	E.CAPACITOR 25V 47U	1	
C2526		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C2528		ECEA1HKA010	E.CAPACITOR 50V 1U	1	
C2529		ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C2530-32		ECUM1H333KBN	C.CAPACITOR CH 50V 0.033U	3	
C2533		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2535		ECEA1HKNR47	E.CAPACITOR 50V 0.47U	1	
C2536		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2537		ECEA1HKNR22	E.CAPACITOR 50V 0.22U	1	
C2538		ECQV1H683JM	P.CAPACITOR 50V 0.068U	1	
C2539		ECEA1EKA470	E.CAPACITOR 25V 47U	1	
C3002		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3003		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C3005		ECQV1H154JM	P.CAPACITOR 50V 0.15U	1	
C3010		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3011		ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C3012		ECAOJM102	E.CAPACITOR 6.3V 1000U	1	
C3013		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C4002		ECUM1H331JCN	C.CAPACITOR CH 50V 330P	1	
C4004		ECUM1H681JCN	C.CAPACITOR CH 50V 680P	1	
C4006		ECEA1CKA330	E.CAPACITOR 16V 33U	1	
C4007		ECQB1H822KF	P.CAPACITOR 50V 8200P	1	
C4008		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C4009		ECEA1CKA330	E.CAPACITOR 16V 33U	1	
C4010		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4011,12		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	2	
C4013		ECEA16M33	E.CAPACITOR 16V 33U	1	
C4014		ECUM1H152JCN	C.CAPACITOR CH 50V 1500P	1	
C4015		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C4016		ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C4017		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C4018		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C4019		ECQB1H153JF	P.CAPACITOR 50V 0.015U	1	
C4020		ECQB1H102KF	P.CAPACITOR 50V 1000P	1	
C4021		ECQP1332J2	P.CAPACITOR 100V 3300P	1	
C4022		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C4023		ECEA1CKA470	E.CAPACITOR 16V 47U	1	

Note : The parts on this page are supplied from V.R.D (Video Recorder Division).

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C4009	ECEA1CKA330	E.CAPACITOR 16V 33U	1	
C4010	ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4011,12	ECUM1H1042FN	C.CAPACITOR CH 50V 0.1U	2	
C4013	ECEA16M33	E.CAPACITOR 16V 33U	1	
C4014	ECUM1H152JCN	C.CAPACITOR CH 50V 1500P	1	
C4015	ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C4016	ECUM1HZ21JCN	C.CAPACITOR CH 50V 220P	1	
C4017	ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C4018	ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C4019	ECQB1H153JF	P.CAPACITOR 50V 0.015U	1	
C4020	ECQB1H102KF	P.CAPACITOR 50V 1000P	1	
C4021	ECQP1332JZ	P.CAPACITOR 100V 3300P	1	
C4022	ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C4023	ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C4024	ECUM1H1032FN	C.CAPACITOR CH 50V 0.01U	1	
C4025	ECCD2H181J	C.CAPACITOR 500V 180P	1	
C4026	ECEA1CKA100	E.CAPACITOR 16V 10U	1	
C4028	ECEA1EKA4R7	E.CAPACITOR 25V 4.7U	1	
C4030	ECQB1H123JZ	P.CAPACITOR 50V 0.012U	1	
C6002,03	ECUM1H080DCN	C.CAPACITOR CH 50V 8P	2	
C6006,07	ECUM1H271JCN	C.CAPACITOR CH 50V 270P	2	
C6010	ECUM1H1032FN	C.CAPACITOR CH 50V 0.01U	1	
C6022	ECUM1H1032FN	C.CAPACITOR CH 50V 0.01U	1	
C6501	ECEA1EKA470	E.CAPACITOR 25V 47U	1	
C6502	ECUM1C2242FN	C.CAPACITOR CH 16V 0.22U	1	
C6504	ECUM1H1042FN	C.CAPACITOR CH 50V 0.1U	1	
D302	ERJ8GEYJ225	M.RESISTOR CH 1/8W 2.2M	1	
D303	MA151A	DIODE	1	
D304,05	1SS254	DIODE	2	
D801,02	1SS254	DIODE	2	
D1002	MA151K	DIODE	1	
D1103	11ES1	DIODE	1	
D1501	LN59L.VT	PHOTO DIODE	1	SENSOR LED
D2003	MA151K	DIODE	1	
D2004	MA151WK	DIODE	1	
D2501	MA153	DIODE	1	
D2503	11ES1	DIODE	1	
D2505	MA151K	DIODE	1	
D4001	1SS254	DIODE	1	
DL801	VLD0198	DELAY LINE	1	
FL881	VLF0143	FILTER	1	
IC301	VEFH29J	IC	1	
IC802	M52352FP	IC	1	
IC881	BA7025L	IC	1	
IC1001	HA17431PA	IC	1	
IC1501,02	ON1387	DIODE	2	
IC2001	UPC358G2	IC	1	
IC2501	AN3814K	IC	1	
IC2502	BA6871S	IC	1	
IC4001	LA7285	IC	1	
IC6001	MN67434VRSW	IC	1	
IC6002	PST591B	IC	1	
IC6501	XRA6887-V3	IC	1	
L303	ELESQ220KA	COIL 22UH	1	
L304	ELESQ101KA	COIL 100UH	1	
L305	ELESQ560JA	COIL 56UH	1	
L306	ELESQ820KA	COIL 82UH	1	
L803	ELESQ5R6KA	COIL 5.6UH	1	
L804	ELESQ101KA	COIL 100UH	1	
L805	ELESQ270KA	COIL 27UH	1	
L807,08	VLQ0540J150	COIL 15UH	2	
L809	ELESQ101KA	COIL 100UH	1	
L811,12	ELESQ101KA	COIL 100UH	2	
L881	ELESE101KA	COIL 100UH	1	
L2001	VLP0074	COIL	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
L2501	VLQEL05S330K	COIL 33UH	1	
L3002	ELESE681JA	COIL	1	
L3006	VLQ0188J330	COIL 33UH	1	
L4001	VL00177K153	COIL H	1	
L4002	ELESE471KA	COIL	1	
L4003	VLQ0188J330	COIL 33UH	1	
L4004	VLQ0188J150	COIL 15UH	1	
L6001	VLP0074	COIL	1	
L6501	VLP0074	COIL	1	
P1001	TJS1A8140	CONNECTOR 8P	1	
P1503	VJS3316A002	CONNECTOR (FEMALE) 2P	1	
P1504	VJS3317A004	CONNECTOR (FEMALE) 4P	1	
P2501	VJS3537A015G	CONNECTOR (FEMALE) 15P	1	
P2503	VJP3483	CONNECTOR (MALE) 3P	1	
P2504	VJS3537A009G	CONNECTOR (FEMALE) 9P	1	
P3001	VJS1680	CONNECTOR (FEMALE) 10P	1	
P3003	VJS2331	CONNECTOR (FEMALE) 6P	1	
P4001	VJP1229T	CONNECTOR (MALE) 2P	1	
P4002	VJS2329	CONNECTOR (FEMALE) 6P	1	
P4003	TJS1A8140	CONNECTOR 8P	1	
P6001	VJP1229T	CONNECTOR (MALE) 2P	1	
PK881	VJR0456	PACK PIN	1	
PP3001	VJP3044G009W	CONNECTOR (MALE) 9P	1	
PP3002	VJP3044G012W	CONNECTOR (MALE) 12P	1	
PP3003	VJP3044G006W	CONNECTOR (MALE) 6P	1	
PS301	VJS3044F009W	CONNECTOR (FEMALE) 9P	1	
PS302	VJS3044F012W	CONNECTOR (FEMALE) 12P	1	
PS303	VJS3044F006W	CONNECTOR (FEMALE) 6P	1	
Q1003	2SD1994A	TRANSISTOR	1	
Q1004	2SD1938	TRANSISTOR	1	
Q1101	2SD1996	TRANSISTOR	1	
Q1102	2SD1991A	TRANSISTOR	1	
Q1501,02	PN205L-NC.VT	PHOTO TRANSISTOR	2	S.T-PHOTO SENSOR
Q2502	MSB710	TRANSISTOR	1	
Q2504	MSB709	TRANSISTOR	1	
Q3002	MSB709	TRANSISTOR	1	
Q3003	2SD602-R	TRANSISTOR	1	
Q4001	2SD602-R	TRANSISTOR	1	
Q4002	2SD1938	TRANSISTOR	1	
Q4003	2SB709AI	TRANSISTOR	1	
QR303	MRN2404	TRANSISTOR-RESISTOR	1	
QR306	MRN1404	TRANSISTOR-RESISTOR	1	
QR805	MRN1404	TRANSISTOR-RESISTOR	1	
QR1002	MUN2212	TRANSISTOR-RESISTOR	1	
QR1101	UN2214	TRANSISTOR-RESISTOR	1	
QR2001	XN1213	TRANSISTOR-TRANSISTOR	1	
QR2002	MUN2112	TRANSISTOR-RESISTOR	1	
QR3001	MUN2213	TRANSISTOR-RESISTOR	1	
QR3002	MUN2111	TRANSISTOR-RESISTOR	1	
QR3003	MUN2213	TRANSISTOR-RESISTOR	1	
QR4001	MUN2213	TRANSISTOR-RESISTOR	1	
QR6501	XN1211	TRANSISTOR-RESISTOR	1	
R304	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R307	ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R308	ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R310	ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R312	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R315	ERJ6GMYG303	M.RESISTOR CH 1/10W 30K	1	
R316	ERJ6GMYG133	M.RESISTOR CH 1/10W 13K	1	
R318,19	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R322	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	

Note : The parts on this page are supplied from V.R.D (Video Recorder Division).

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R327	ERJ6GEYK125	M.RESISTOR CH 1/10W 1.2M	1	
R813	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R814	ERJ6GMYJ393	M.RESISTOR CH 1/10W 39K	1	
R815	ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	1	
R816	ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R817	ERJ6GMYJ162	M.RESISTOR CH 1/10W 1.6K	1	
R818	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R819	ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R820	ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R823,24	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	2	
R826	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R827	ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R828	ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R829	ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R830	ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R848	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R849	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R853	ERJ6GMYJ473	M.RESISTOR CH 1/10W 47K	1	
R855	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R857	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R859	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R881	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	
R882	ERJ6GMYJ390	M.RESISTOR CH 1/10W 39	1	
R883	ERJ6GMYJ154	M.RESISTOR CH 1/10W 150K	1	
R884	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R885	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R886	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R887	ERJ6GMYG162	M.RESISTOR CH 1/10W 1.6K	1	
R1003	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R1004	VRE0034E152	M.RESISTOR CH 1/10W 1.5K	1	
R1005	VRE0034E751	M.RESISTOR CH 1/10W 750	1	
R1006	VRE0034E222	M.RESISTOR CH 1/10W 2.2K	1	
R1007	ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R1101	ERDS1TJ821	C.RESISTOR 1/2W 820	1	
R1103	ERJ6GMYG242	M.RESISTOR CH 1/10W 2.4K	1	
R1104	ERJ6GMYG222	M.RESISTOR CH 1/10W 2.2K	1	
R2001	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R2002	ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R2003	ERJ6GMYJ104	M.RESISTOR CH 1/10W 1M	1	
R2004	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2005	ERJ6GMYJ104	M.RESISTOR CH 1/10W 1M	1	
R2006-09	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	4	
R2010	ERJ6GMYJ244	M.RESISTOR CH 1/10W 240K	1	
R2013	ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R2014	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R2015	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R2017	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R2018	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2019	ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R2501	ERDS2TJ391	C.RESISTOR 1/4W 390	1	
R2502	ERDS2FJ1R5	C.RESISTOR 1/4W 1.5	1	
R2503-05	ERDS2TJ330	C.RESISTOR 1/4W 33	3	
R2506	ERDS2FJ1R2	C.RESISTOR 1/4W 1.2	1	
R2507	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R2508	ERDS1TJ561	C.RESISTOR 1/2W 560	1	
R2509-11	ERDS2TJ560	C.RESISTOR 1/4W 56	3	
R2512	ERX12SJR47	M.RESISTOR CH 1/2W 0.47	1	
R2513	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R2514	ERJ6GMYG681	M.RESISTOR CH 1/10W 680	1	
R2518	ERJ6GMYG821	M.RESISTOR CH 1/10W 820	1	
R2519	ERJ6GMYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R2520	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2521	ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R2522	ERJ6GMYG473	M.RESISTOR CH 1/10W 47K	1	
R2523	ERJ6GMYG103	M.RESISTOR CH 1/10W 10K	1	
R2524	ERJ6GMYG133	M.RESISTOR CH 1/10W 13K	1	
R2525	ERJ6GMYG102	M.RESISTOR CH 1/10W 1K	1	
R2526	ERJ6GMYJ684	M.RESISTOR CH 1/10W 680K	1	
R2527	ERJ6GMYJ105	M.RESISTOR CH 1/10W 1M	1	
R2528	ERJ6GMYG432	M.RESISTOR CH 1/10W 4.3K	1	
R2530	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R2531	ERJ6GMYG201	M.RESISTOR CH 1/10W 200	1	
R2532,33	ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	2	
R2535,36	ERJ6GMYG223	M.RESISTOR CH 1/10W 22K	2	
R2537	ERJ6GMYJ223	M.RESISTOR CH 1/10W 22K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R2538	ERJ6GMYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R2539	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R2541	ERJ6GMYJ271	M.RESISTOR CH 1/10W 270	1	
R2542,43	ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	2	
R3001	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3002	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R3003	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R3006	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3009	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R3010	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R3011	ERJ6GMYJ471	M.RESISTOR CH 1/10W 470	1	
R3012	ERDS1TJ471	C.RESISTOR 1/2W 470	1	
R3013	ERJ6GMYJ750	M.RESISTOR CH 1/10W 75	1	
R3014	ERJ6GMZ0R00	M.RESISTOR CH 1/10W 0	1	
R3016	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4001	ERDS2TJ100	C.RESISTOR 1/4W 10	1	
R4002	ERJ6GMYJ683	M.RESISTOR CH 1/10W 68K	1	
R4003	ERJ6GMYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R4004	ERJ6GMYJ394	M.RESISTOR CH 1/10W 390K	1	
R4005	ERJ6GMYJ181	M.RESISTOR CH 1/10W 180	1	
R4006	ERJ6GEYJ113	M.RESISTOR CH 1/10W 11K	1	
R4007	ERJ6GMYG103	M.RESISTOR CH 1/10W 10K	1	
R4009	ERJ6GMYG103	M.RESISTOR CH 1/10W 10K	1	
R4010	ERJ6GMYJ824	M.RESISTOR CH 1/10W 820K	1	
R4011	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4012	ERJ6GMYJ513	M.RESISTOR CH 1/10W 51K	1	
R4013	ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R4014	ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R4015	ERJ6GMYG303	M.RESISTOR CH 1/10W 30K	1	
R4018	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4020	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R4021	ERJ6GMYJ823	M.RESISTOR CH 1/10W 82K	1	
R4022	ERJ6GMYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4023,24	ERJ6GMYG104	M.RESISTOR CH 1/10W 100K	2	
R4025	ERJ6GMYG473	M.RESISTOR CH 1/10W 47K	1	
R4026	ERJ6GMYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R4027	ERJ6GMYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R4028	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R4029	ERJ6GMYJ183	M.RESISTOR CH 1/10W 18K	1	
R4030	ERJ6GMYJ123	M.RESISTOR CH 1/10W 12K	1	
R4031	ERJ6GMYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4032	ERJ6GMYJ470	M.RESISTOR CH 1/10W 47	1	
R4034	ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	1	
R6001,02	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	2	
R6003	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R6004,05	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	2	
R6006	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R6007	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6010	ERJ6GMYJ331	M.RESISTOR CH 1/10W 330	1	
R6011,12	ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	2	
R6013	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6016	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6018	ERJ6GMYJ221	M.RESISTOR CH 1/10W 220	1	
R6021	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6025	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6026,27	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	2	
R6028	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6029	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R6030,31	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	2	
R6032	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R6033	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6034	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R6035	ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R6038	ERJ6GMYJ103	M.RESISTOR CH 1/10W 10K	1	
R6041	ERJ6GMYJ101	M.RESISTOR CH 1/10W 100	1	
R6043	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R6501	ERX1SJ1R8	M.RESISTOR 1W 1.8	1	
R6502	VRE0034E122	M.RESISTOR CH 1/10W 1.2K	1	
R6503	ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R6504	VRE0034E94A	M.RESISTOR CH 1/10W	1	
R6505	ERJ6GMYG512	M.RESISTOR CH 1/10W 5.1K	1	
R6506	ERJ6GMYG913	M.RESISTOR CH 1/10W 91K	1	
R6507	VRE0034E751	M.RESISTOR CH 1/10W 750	1	
R6508	ERJ6GMYJ104	M.RESISTOR CH 1/10W 1M	1	
R6509	ERJ6GMYJ224	M.RESISTOR CH 1/10W 220K	1	

Note : The parts on this page are supplied from V.R.D (Video Recorder Division).

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEPO5196A	HEAD AMP C.B.A.		(RTL)
C501		ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C502		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C504		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C506		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C507		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C508		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C509		ECUM1H681JCN	C.CAPACITOR CH 50V 680P	1	
C511		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C512		ECUM1H151JCN	C.CAPACITOR CH 50V 150P	1	
C513		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C514		ECUM1H080DCN	C.CAPACITOR CH 50V 8P	1	
C515-18		ECUM1H1042FN	C.CAPACITOR CH 50V 0.1U	4	
C519		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C520-22		ECUM1H1042FN	C.CAPACITOR CH 50V 0.1U	3	
C525,26		ECUM1H1042FN	C.CAPACITOR CH 50V 0.1U	2	
IC501		RA7180FS	IC	1	
L501		ELESE820KA	COIL 82UH	1	
L502		ELESE151K	COIL 150UH	1	
L503		ELESE101KA	COIL 100UH	1	
L504		ELESE120KA	COIL 12UH	1	
L505		ELESE101KA	COIL 100UH	1	
L506		ELESE6R8JA	COIL 6.8UH	1	
L507		ELESE270KA	COIL 27UH	1	
L508		ELESE101KA	COIL 100UH	1	
P501		VJS1680	CONNECTOR (FEMALE) 10P	1	
P502		VJS3069	CONNECTOR (FEMALE) 6P	1	
Q502		2SD601A1-R	TRANSISTOR	1	
Q504		MSC2295	TRANSISTOR	1	
Q505		2SB709AI	TRANSISTOR	1	
Q506		MSC2295	TRANSISTOR	1	
QR501		MUN2213	TRANSISTOR-RESISTOR	1	
R501,02		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	2	
R504		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R505		ERJ6GMYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R506		ERJ6GMYJ681	M.RESISTOR CH 1/10W 680	1	
R507		ERJ6GMYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R508		ERJ6GMYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R509		ERJ6GMYJ681	M.RESISTOR CH 1/10W 680	1	
R511,12		ERJ6GMYJ821	M.RESISTOR CH 1/10W 820	2	
R513		ERJ6GMYJ102	M.RESISTOR CH 1/10W 1K	1	
R514		ERJ6GMYJ391	M.RESISTOR CH 1/10W 390	1	
R515,16		ERJ6GMYJ561	M.RESISTOR CH 1/10W 560	2	
R517		ERJ6GMYG393	M.RESISTOR CH 1/10W 39K	1	
R518		ERJ6GMYJ104	M.RESISTOR CH 1/10W 1M	1	
R519		ERJ6GMYJ100	M.RESISTOR CH 1/10W 10	1	
VR502		EVND6AA00B13	V.RESISTOR 1K	1	
VR3012		EVND6AA00B52	V.RESISTOR 500	1	
			MISCELLANEOUS		
		VSC3770	SHILED COVER (BOTTOM)	1	
		VSC3768	SHILED COVER (TOP)	1	
		VSC3304	SHILED COVER (MAIN)	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C881		ECUN1H103ZFN	C.50V,0.01U		
C882		ECEA1CK330I	E.16V, 33U		
C883		ECEAK470B	E. 47U		
C884		ECQU14563JM3	F.50V,0.056		
C885		ECEA1CK330B	E.16V, 33U		
C886		ECUN1H103ZFN	C.50V 0.01		
C887		ECUV1C105ZFN	C. 1U		
C888		ECUN1H470JCN	C.50V 47P		
T881		ELM7Q207A			
C843		ECUN14104ZFN	C.50V 0.1U		